

Tele : 020 – 25206880
Fax : 25206880

Mukhyalaya
Rashtriya Raksha Academy
Headquarters
National Defence Academy
PO NDA Khadakwasla
Pune – 411 023

019229/IP EXH/20010 -11/MIS(IT)

July 10

**TENDER ENQUIRY FOR INSTALLATION OF NEW INTERCOM EXCHANGE
AT NATIONAL DEFENCE ACADEMY**

1. Bids in sealed cover are invited for supply of items listed in Part III of this RFP. Please super scribe the above mentioned Title, RFP number and date of opening of the Bids on the sealed cover to avoid the Bid being declared invalid.

2. The address and contact numbers for sending Bids or seeking clarifications regarding this RFP are given below : -

- (a) Bids/queries to be addressed to : COMMANDANT
NATIONAL DEFENCE ACADEMY,
PO NDA, KHADAKWASLA ,
PUNE – 411 023
- (b) Postal address for sending the Bids: MIS CELL , TRAINING BRANCH
SUDAN BLOCK,
NDA, KHADAKWASLA,
Pune – 411 023
- (c) Name/designation of the contact personnel : GSO – 2 (EDP & SA)
- (d) Telephone numbers of the contact personnel : 020 - 25206880
- (e) e-mail ids of contact personnel : www.nda.nic.in
- (f) Fax number : 020 - 25206880

3. This RFP is divided into five Parts as follows :-

- (a) **Part I** Contains General Information and Instructions for the Bidders about the RFP such as the time, place of submission and opening of tenders, Validity period of tenders, etc.
- (b) **Part II** Contains essential details of the items/services required, such as the Schedule of Requirements (SOR), Technical Specifications, Delivery Period, Mode of Delivery and Consignee details.

- (c) **Part III** Contains Standard Conditions of RFP, which will form part of the Contract with the successful Bidder.
- (d) **Part IV** Contains Special Conditions applicable to this RFP and which will also form part of the contract with the successful Bidder.
- (e) **Part V** Contains Evaluation Criteria and Format for Price Bids.

Conditions under which this RFP is issued

- 4. This RFP is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the RFP, should it become necessary at any stage.
- 5. Please acknowledge receipt.

(P Nautiyal)
Major
GSO-2(EDP & SA)
For Commandant

PART I – GENERAL INFORMATION

1. **Last date and time for depositing the Bids. 02 Aug 2010 by 1330 hrs**
The sealed Bids (both technical and Commercial, should be deposited/reach by the due date and time. The responsibility to ensure this lies with the Bidder.
2. **Manner of depositing the Bids.** Sealed Bids should be either dropped in the Tender Box marked as '**Technical Bids and Commercial Bids**' or send by registered post at the address given at Para 2 (b) so as to reach by the due date and time. Late tenders will not be considered. No responsibility will be taken for postal delay or non delivery/ non-receipt of Bid documents. Bids sent by FAX or e-mail will not be considered (unless they have been specifically called for by these modes due to urgency).
3. **Time and date for opening of Bids. 05 Aug 10 at 1100 hrs.** (If due to any exigency, the due date for opening of the Bids is declared a closed holiday, the Bids will be opened on the next working day at the same time or on any other day/time, as intimated by the Buyer).
4. **Location of the Tender Box (MIS CELL ,TRAINING BRANCH, SUDAN BLOCK, NDA, KHADAKWASLA, Pune – 411 023).** Only those Bids that are found in the tender box will be opened. Bids dropped in the wrong Tender Box will be rendered invalid.
5. **Place of opening of the Bids. (MIS CELL ,TRAINING BRANCH,SUDAN BLOCK, NDA, KHADAKWASLA, Pune – 411 023).** The Bidders may depute their representatives, duly authorized in writing, to attend the opening of Bids on the due date and time. Rates and important commercial/technical clauses quoted by all Bidders will be read out in the presence of the representatives of all the Bidders. This event will not be postponed due to non-presence of your representative.
6. **Two-Bid system.** In case of the Two-bid system, only the Technical Bid would be opened on the time and date mentioned above. Date of opening of the Commercial Bid will be intimated after acceptance of the Technical Bids. Commercial Bids of only those firms will be opened, whose Technical Bids are found compliant/suitable after Technical evaluation is done by the Buyer.
7. **Forwarding of Bids .** Bids should be forwarded by Bidders under their original memo / letter pad inter alia furnishing details like TIN number, VAT/CST number, Bank address with EFT Account if applicable, etc and complete postal & e-mail address of their office.
8. **Clarification regarding contents of the RFP.** A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarifications sought not later than 14 (fourteen) days prior to the date of opening of the Bids. Copies of the query and clarification by the purchaser will be sent to all prospective bidders who have received the bidding documents.

9. **Modification and Withdrawal of Bids.** A bidder may modify or withdraw his bid after submission provided that the written notice of modification or withdrawal is received by the Buyer prior to deadline prescribed for submission of bids. A withdrawal notice may be sent by fax but it should be followed by a signed confirmation copy to be sent by post and such signed confirmation should reach the purchaser not later than the deadline for submission of bids. No bid shall be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and expiration of the period of bid validity specified. Withdrawal of a bid during this period will result in Bidder's forfeiture of bid security.
10. **Clarification regarding contents of the Bids.** During evaluation and comparison of bids, the Buyer may, at its discretion, ask the bidder for clarification of his bid. The request for clarification will be given in writing and no change in prices or substance of the bid will be sought, offered or permitted. No post-bid clarification on the initiative of the bidder will be entertained.
11. **Rejection of Bids.** Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected.
12. **Unwillingness to quote.** Bidders unwilling to quote should ensure that intimation to this effect reaches before the due date and time of opening of the Bid, failing which the defaulting Bidder may be delisted for the given range of items as mentioned in this RFP.
13. **Validity of Bids.** The Bids should remain valid till **31 Mar 11** from the last date of submission of the Bids.
14. **Earnest Money Deposit.** Bidders are required to submit Earnest Money Deposit (EMD) for the amount of 4,75,000/- (Rupees Four Lacs Seventy Five Thousand only) of the total cost of the commercial bid along with their bids. The EMD may be submitted in the form of an Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the public sector banks or a private sector bank authorized to conduct government business as per Appendix attached EMD is to remain valid for a period of forty-five days beyond the final bid validity period. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. The Bid Security of the successful bidder would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the contract. EMD is not required to be submitted by those Bidders who are registered with the Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation (NSIC) or any Department of MoD or MoD itself. The EMD will be forfeited if the bidder withdraws or amends, impairs or derogates from the tender in any respect within the validity period of their tender.

PART II – ESSENTIAL DETAILS OF ITEMS/SERVICES REQUIRED

1. **Schedule of Requirements** . List of items /services required is as follows:-

S.No.	Description of the items	Qty
1.0	At Main Site Designing, Supplying, installation, testing & commissioning of IP Telephony system in 1:1 redundancy mode for the asked system scalability & as per other guidelines mentioned in the specifications with licenses for 500 Users	01 set
(b)	RLU -one RLU Location with required Modems & PoE LAN Switch for 24 Phones(ip/analog) as mentioned in the specs.	01 Set
2.0	Voice gateway with the following :- ? 5 PRI ? 600 DSP resources for G.729 ? 10 analog ports & 10 telephones	01 Set
3.0	IP Phones with Power adaptors	340
4.0	(i)Soft Phone-Software based clients as per the specs (ii) Video capability in the soft Phone client with web cam (iii) USB Handsets with built in dial pad	150 150 150
5.0	Communicator Clients Web based as per the specs	500
6.0	Mobile based telephony client-as per the specs supported by list of phone models provided	500
7.0	Digital attendant console with headset & Mic	1
8.0	Call centre Solution with reporting agents	100
9.0	Audio Conferencing Bridge	30 ports
10.0	Web Conferencing Bridge	30 ports
11.0	Unified Voice mail system for Voice & Fax capability with required Hardware & Software	500 users & 30 ports
12.0	Call billing software with required Hardware	1
13.0	Auto Attendant as per the specs (separate from Voice mail)	1
14.0	Hardware based Video Conferencing MCU as per the specifications for minimum 10 ports	1
15.0	Online UPS 1+1 minimum 10 KVA with batteries to provide 8 Hours backup.	1

S.No.	Description of the items	Qty
16.0	Modem / Converter Pairs Ethernet to Cu for range of 10 Km	5
17.0	Layer 2 managed Ethernet Switch with 24 ports	50
18.0	Cat 6 cable 300 mtr each roll	70 rolls
19.0	PVC casing for concealing cabling	15000mtr
20.0	ACs 2 ton Split	4
21.0	Vendor specific installation material as required by vendor to complete installation and commissioning to incl connectors RJ 11, RJ 45, sockets with wiring laid as per standards.	1 set
22.0	Three yr comprehensive onsite warranty	

Technical Details.

1. **Requirement Overview.** There is a requirement of having Unified Communication for NDA, Pune. Following facilities are envisaged as the part of Unified Communication Solution:-

- (i) IP Telephony Solution
- (ii) Unified Access Clients-over Phones ,PC & Web
- (iii) Unified Messaging
- (iv) Conferencing & Collaboration Solution

2. **Unified Communication Solution**

(a) **IP Telephony**

(i) **Technology.** The IP telephony system should be a converged communication System with ability to run TDM and IP on the same platform using same software load based on server and Gateway architecture. The system should be capable of supporting Analogue, Digital, IP Telephones or PC Based Communicator clients.

(ii) **Open Standards .** For easy integration/interoperability with third party applications the offered IP system should use open standards for its Operating system, Call processing, signaling & networking. There should not be any Proprietary/vendor specific protocols in Operating system, Call processing, signaling & networking. Provided IP telephony system should be able to work on any industry standard based IP network infrastructure.

(iii) **Operating System.** Operating system used for the server should be optimal for the call processing and operational demands of a real time communications system. The operating system must be transparent to the system administrator, and based on a secure and flexible design for future system development and expansion. It should be Linux only which is an open standard platform. Used Linux should be hardened to avoid any virus attacks, and provide Security in various aspects.

(b) **Reliability/High Availability**

IP telephony system should be designed to provide high uptime of 99.99%. System should be designed using fully redundant Appliance based External Servers (no card/blade based CPU will be accepted). These servers should work in Hot standby mode. These servers should be provided in 1:1 redundancy mode. i.e. If one Server fails the second server should be able to take the complete load of the calls automatically (without any manual intervention) & without dropping any existing calls (IP, TDM & PRI). There should be no restriction on number of endpoints being backed up in case of one sever failure. Servers should provide state full failover. System should be provided with following redundancy.

- (i) Appliance based servers in 1:1 redundancy mode for the asked system scalability.
- (ii) Duplicated Links/Nics for the signaling from all the Servers to the Gateways

(c) **Call Processing Capacity**. The system should be capable of supporting a very high traffic and should support a Busy Hour Completion (BHCC) at least 250000(2.5 lacks). Vendors to attach the datasheet supporting the asked BHCC figure.

(d) **System Scalability**. Though there is a current requirement of 500 endpoints but the proposed IP telephony system should scale up to a minimum of 15000 IP or more phones without needing to add/change the servers.

(e) **Conferencing** . The IP telephony system should provide native 6-Party conferencing for its users in any combination of external and internal calls. In the gateways DSP resources should be provisioned to have at least 30 such concurrent conferences.

(f) **Endpoints** . The telephony system must be able to support all type of endpoints i.e. analog phones, digital phones, IP Phones, Soft Phones with appropriate hardware & software.

(g) **Auto - diagnostics**. The IP telephony system should have in-built health monitoring software to check the functioning of the system. The system should have in built diagnostic features such as isolation/detection of fault in the ystem/server/junction and restoration of faulty system/junctions after rectification. When the system go down due to any reason (say power failure or some other fault), the system should have auto restart capability to automatically reload the system software after system power is restored/fault rectified.

(h) **Security**

- a) For enhanced security system should be able to encrypt the IP calls end to end with AES-128 bit or SRTP. There should not be any limitation in terms of IP endpoint type. The signaling from gateways to the Telephony Server should also be encrypted.
- b) System should be able to encrypt the Control signaling also associated with the IP Calls with a minimum of AES 128 bit.

- c) Access to the system should be secure .Access mechanism like SSH, HTTPS, SNMP v3 should be used.
- d) It shall be possible to bar unauthorized user to connect to the system.
- e) System should also provide the ability for encrypted audio streams from IP Phone to the asked multi-party conference bridge.
- f) For enhanced security there should be provision of defining password aging, one time passwords.
- g) System, should use the IP Tables firewall that should protect the system against various network-based attacks, allowing customers to control open and closed ports to accommodate their network security requirements.
- h) System should use Tripwire security mechanism an IDS to monitor operating systems and applications for some of the most widely-used hacking techniques.
- i) System should be able to provide security violation alert on some predefined endpoint i.e. analog/digital/IP Phone by a prerecorded announcement. The system should monitor and report the following types of security violations:
 - (i) Login violations
 - (ii) Authorization code violations
 - (iii) Station security code violations.

Note:- All Hardware & Software required for providing above security measures should be included in the offer without any extra cost.

- (j) **Interface Compatibility** . The telephony server should support following trunk interfaces/protocols with appropriate hardware/software:-
 - (i) Digital Tie trunk. The system shall be able to provide E1 Tie trunk to support the private networking.
 - (ii) ISDN-PRI with QSIG: The server should support ISDN-PRI & BRI trunks.
 - (iii) H323 and SIP trunks: The server should have the integrated H323 and SIP trunk Interface based on Internet Protocol (IP) technology to provide a lower cost of usage by transmitting voice over corporate Intranet, or private Local Area Network (LAN).

Note :- Vendors to provide a minimum of 1000 IP Trunks & 1000 SIP trunks within the offer without any extra cost.

- (k) **Flexible Dialling Plan** .It is required that the proposed system solution should support a flexible multi-digit (1- 08 or more digits) dialling plan for the internal extensions.

(l) **Networking Protocol - QSIG**

Provided system must provide Industry standard based QSIG functionality on ISDN-PRI trunks The Cost for QSIG must be included in the offer. Following QSIG features must be provided. (No proprietary protocol should be used):-

- (i) **Basic Call Services**
 - (aa) Basic Call Setup
 - (ab) Name and Number Transport
 - (ac) Transit Counter
- (ii) **Basic Supplementary Services**
 - (aa) Called/Calling/Busy/Connected Name and Number
 - (ab) Name Identification Services
 - (ac) Diversion (Call Forwarding)
 - (ad) Diversion (Call Forwarding) with Reroute (using Path Replacement)
 - (ae) Call Transfer
 - (af) Call Offer
 - (ag) Path Replacement
 - (ah) Call Transfer into QSIG Message Center

3. **IP Telephony VOICE Gateway**. The media gateway should provide the following:-
- (a) Capable of being mounted on a 19" rack.
 - (b) DSP Chips/modules with a minimum of 600 concurrent resources for Transcoding & conferencing should be provisioned in the Gateway.
 - (c) Gateway should provide universal slots architecture with a minimum of 10 slots for housing various interfaces like E1/T1 FXO, FXS etc.
 - (d) The Gateway should be provided with a minimum support of 7 E1 & 40 FXO ports.
 - (e) The interface to Server and control network should be possible via 10/100/1000 base T interface
 - (f) All the tone generation and tone detection should be local to the gateway.
 - (g) It should provide advanced security including SRTP encryption, SSH/SCP, SNMP v3 support, secrets managements etc.
 - (h) For the high availability Voice gateway should dedicatedly be used only for telephony purpose. No Network component like Router etc to be used for providing this capability.
4. **Gatekeeper Architecture**. The Gatekeeper should support 10/100 base T connection providing Transmission Control Protocol/Internet Protocol (TCP/IP) connectivity between an IP telephony server and various gateways and IP telephones. The gatekeeper should provide UDP/IP support, as required by H.323 used to implement IP Solutions.

- (a) The IP signaling capabilities should include:-
- (i) The Registration, Admission, and Security (RAS) protocol of H.323/H.225
 - (ii) The Q.931 protocol of H.323/H.225 for signaling and advanced applications
 - (iii) The H.245 protocol of H.323 for user input indication messages
 - (vi) The H.323 Annex L based signaling for IP Softphone and IP Telephone

Note:- It should be clearly noted that this gatekeeper functionality should be the internal capability of the Telephony Server. It should not be provided by inserting any IP card in the Gateway. Vendors to offer only that product which can provide this capability through the server only. This requirement is inline to get the System with true IP architecture rather than IP enabling a TDM platform by inserting some IP Cards.

(b) **H.323 DSP farm**

- (i) The H323 DSP farm should handle media stream processing . It should be used to inter work audio between a gateway Time Division Multiplex (TDM) bus and the IP network.
- (ii) It should handle audio ("bearer") traffic, as directed by call processing software in response to H.323 signaling. To carry audio streams from the gateway TDM bus onto the IP network, the gateway should use digital circuitry to pull Pulse Code Modulation (PCM) audio sample(s) from the TDM bus, adjust gain, and if needed perform audio summing for conferencing.
- (iii) It should have built-in Digital Signal Processors (DSP) which encodes the audio using the selected codec (coder-decoder, e.g. G.729B). These resources should be used dynamically on call-by-call basis.
- (vi) It should support dynamic jitter buffer. The delay across the dynamic jitter buffer should automatically adjust to the behavior of the underlying IP network, providing the minimal latency needed to ensure a consistent audio stream.
- (v) Echo cancellation, Silence suppression, Dual-tone multi frequency (DTMF) detection should be performed on the DSP output.
- (vi) This DSP should provide AES-128 bit media encryption & should also provide resources for conferencing.
- (vii) It should support the standard audio codecs used in the industry: G.711 (A-law and Mu-law), and G.729 (including G.729A, G.729B).

(viii) It should also support standard Quality of Service (QOS) mechanisms defined in Differentiated Services (DiffServ), RSVP protocol and 802.1p/q required to prioritize audio traffic across the IP network by marking packet headers in Type of Service (TOS) bits.

(ix) T.38 fax over the IP network should be supported by this DSP farm.

(x) This DSP resource should be inbuilt onto the motherboard of the Voice gateway itself helping to reduce the Voice gateway slots usage.

(xi) Silence suppression & Voice activity detection facility should be provided without ant extra cost.

5. **Remote Location Unit**

(a) There is one location within the campus where we need to provide the IP/ analog Phones

(b) The connectivity between these two locations will be over copper and suitable modems will be provided to extend it upto 10 Km.

(c) Vendors to have the site survey & to provide the appropriate Modems for creating 2Mbps Bandwidth between Main site & RLU

(d) One PoE LAN switch should also be provided along with atleast 24 ports for the IP Phones.

6. **System Telephony Features**

(a) Following telephony features should be supported & provided along with the offered system:-

<u>STATION FEATURES</u>
1. ADD-ON CONFERENCE (6 party, minimum)
2. AUTOMATIC CALLBACK
3. AUTHORIZATION CODES
4. AUTOMATIC ROUTE SELECTION FOR 2000 USERS
5. BRIDGED CALL APPEARANCE
6. BOSS SECRETARY FEATURE
7. CALL COVERAGE INTERNAL & EXTERNAL
8. CALL COVERAGE TIME OF DAY/DAY OF WEEK
9. CLASS OF SERVICE
10. CLASS OF RESTRICTION
11. CALL FORWARDING - ALL CALLS/ BUSY/DON'T ANSWER

12. CRISIS ALERT
13. CALL PARK
14. CALL PICKUP
15. CALL TRANSFER
16. CALL WAITING
17. CLI (CALLER LINE IDENTIFICATION) ON ANALOG & DIGITAL PHONES FOR INTERNAL CALLS & EXTERNAL PRI CALLS.
18. CUSTOMER STATION REARRANGEMENT
19. DIAL BY NAME
20. DISCRETE CALL OBSERVING
21. DISTINCTIVE RINGING
22. ELAPSED CALL TIMER
23. EMERGENCY ACCESS TO ATTENDANT
24. EXECUTIVE BUSY OVERRIDE
25. FACILITY BUSY INDICATION
26. HANDS-FREE DIALING
27. GROUP PAGING
28. INDIVIDUAL ATTENDANT ACCESS
29. LEAST COST ROUTING
30. LAST NUMBER REDIALED
31. LINE LOCKOUT
32. MALICIOUS CALL TRACE
33. MEET ME CONFERENCING (6-party, minimum)
34. MESSAGE WAITING ACTIVATION
35. MUSIC ON HOLD
36. OFF-HOOK ALARM
37. PADLOCK
38. PERSONAL CO LINE (PRIVATE LINE)
39. PERSONAL SPEED DIALING
40. PERSONALIZED RINGING
41. PRIORITY CALLING
42. PRIVACY - ATTENDANT LOCKOUT
43. PRIVACY - MANUAL EXCLUSION
44. VOICE ACTIVATED DIALING FROM IP PHONES
45. SEND ALL CALLS

46. TRUNK FLASH
47. TRUNK-TO-TRUNK CONNECTIONS
48. SILENT PAGING
49. AUTOMATED ATTENDANT
50. AUTOMATIC CALL DISTRIBUTION
51. AUTOMATIC CAMP-ON
52. AUTOMATIC CIRCUIT ASSURANCE
53. AUTOMATIC ROUTE SELECTION – BASIC
54. CALL-BY-CALL SERVICE SELECTION
55. CALL LOG
56. DELAYED RINGING
57. DIRECT INWARD DIALING
58. DID CALL WAITING
59. DIRECT INWARD SYSTEM ACCESS
60. DIRECT OUTWARD DIALING
61. FORCED ENTRY ACCOUNT CODES
62. HUNTING
63. INTEGRATED SYSTEM DIRECTORY
64. MUSIC ON HOLD
65. NIGHT SERVICE –FIXED
66. NIGHT SERVICE – PROGRAMMABLE
67. ROUTE ADVANCE
68. SYSTEM STATUS REPORT
69. TIME OF DAY ROUTING
70. TRUNK ANSWER ANY STATION
71. TRUNK CALLBACK QUEUING

7. **System Administration/Maintenance Features.** The following system administration & maintenance features should be provided with the system management software & required hardware:-

- (a) The system administration and maintenance terminal should be PC based running Windows based administration and maintenance software.
- (b) The system administration software should be very user friendly with simple English commands for data changes and with the provision of help facility for inputting commands. There should not be any mnemonics used for the administration commands.
- (c) The system administration should be password protected with the notification of security violations.
- (d) The system administration and maintenance terminal should be used for carrying out all health checks, generating traffic reports, inputting commands to the EPABX and taking printout as necessary.
- (e) System management should automatically check through series of tests the normal operation of the PBX.
- (f) System should have provision of instant fault information after a command input.
- (g) System should be capable of remote maintenance facility from a central location over LAN/WAN.
- (h) System should have the provision of automatically identifying and isolating faulty trunks.
- (j) The system shall maintain a history log of last entered commands along with log in name and commands given.
- (k) The system management should enable users to navigate, display, add modify and/or remove the system and related switch components in a user-friendly manner.
- (l) The system administration should be equipped with the following features:
 - (aa) **Scheduling.** The scheduling capability should enable users to specify a task to run at a specific date and time. The task could be one or more operations that users can specify to run at a predetermined time.
 - (ab) **History log.** The history log should enable users to view the results of running the completed tasks.
 - (ac) **Auto users add.** This should assist in the creation of station and subscriber details by automatically providing help.

(ad) **Trunk Analyzer**. Command input should give complete details on the trunk-group usage in terms members used at a particular time etc.

(ae) **Reports**. System administration should provide reports about stations (assigned/unused) alarms, trunk analysis, processor occupancy, system capacity and call traffic reports.

(af) **Alarm Monitor**. Should provide an alerting and reporting mechanism for the EPABX System and errors status. The monitor alarms feature should periodically check the alarms on the EPABX to see if any alarms have occurred and which should be reported.

(ag) **Hardware Manager**. Should allow users to graphically display cabinet information and current alarm status. The hardware manager feature should represent the board and alarm status snapshot of the EPABX. The hardware manager should display the board type, number of free ports.

(ah) **Alarms**. If a maintenance object in the system begins to fail some of the periodic tests the system should automatically generate an alarm indicating corrective action to be required. Three levels of alarms to be generated by the system : -

- ? **Major alarm**: Failures that cause critical degradation of service and require immediate attention.
- ? **Minor alarms**: For failures causing some degradation of service, but not rendering crucial portion of the system inoperable such as faulty trunks/extensions.
- ? **Warning alarms**: Small failures or failure in external equipments interface with the system.
- ? Alarm should be communicated by entries in Alarm log, lighting of LED's on Attendant console.

8. **Telephone Equipment**

(a) **IP Phone**. IP Phone should have the following of specifications atleast :-

- (i) Backlit display a minimum of 3.5" diagonal & of 3 rows by 24 characters.
- (ii) At least 8 line appearance/feature key buttons.
- (iii) Full-duplex speaker phone.
- (iv) Message Waiting Indicator.
- (v) Cell Phone Like Four-way navigation cluster button.
- (vi) Volume button – (separate volume levels in the handset, headset, speaker, and ringer)

- (vii) Various hard keys like Contacts, Call log, Redial, Speaker, Mute Headset, Hold, Conference, Transfer, Drop
- (viii) Ethernet (10/100) line interface with a secondary 10/100 port for collocated laptop or PC.
- (ix) IP Phone should be POE 802.3af compliant class 2 device
- (x) IP Phone should be provided with local power supply unit
- (xi) Headset interface
- (xii) Personal Local Contacts Directory for at least 100 entry contacts
- (xiii) Call log at least 100 entry
- (xiv) H.323 protocol along with standards-based codec support: G.711, G.729A/B.

(b) **Unified Soft phone Client.** It is envisaged to provide the users with a true unified communication client with Single Intuitive Interface to Access communications from one client including voice, video, voice messages, audio/video conferencing, Telephony Presence and communication history. It should provide the following minimum facilities:-

- (i) The users should have access to all the telephony features available on IP Phones like Multiple call appearances and one-button access to frequently used features, such as Answer, Conference, Transfer, Hold, Redial etc.
- (ii) The users should be able to access to voice mail by clicking on MWI Icon
- (iii) Users should be able to use this client as standalone telephony client with Headset & Mic or a special USB handset.
- (iv) The user having Integrated Webcams should be able to make video calls as easily as making a phone call. Features should include audio/video features like call, transfer, forward, conference, hold, mute, call coverage.
- (v) Users should be able to initiate minimum 6 party adhoc Video conference call along with the audio call using MCU.
- (vi) The users should be able to observe the presence of another users telephones on the network.
- (vii) The client should provide a capability to click to call from the numbers highlighted in the web browser

(d) **Unified Web based Client** It is also envisaged to provide the users with a Web based unified communication client with Single Intuitive Interface to Access communications including telephony, audio conferencing, Telephony Presence and communication history. It should provide the following minimum facilities:-

- (i) The user should be able to access this client just by typing an IP address or a Web url in internet explorer

- (ii) After authenticating themselves user should get a telephony Applet.
 - (iii) The users should have access to all the telephony features available on IP Phones such as Answer, Conference, Transfer, Hold, Redial etc
 - (vi) Users should be able to use this client as standalone telephony client with Headset & Mic.
 - (vii) The users should be able to observe the presence of another users telephones on the network.
- (e) **Unified IP Mobile Client for the smart phones.** It is envisaged to provide some of the users having smart phones (Data enabled like GPRS/EDGE/3G) like Blackberry, Windows PDA, Nokia E series etc with a Mobile based software which can provide the minimum of following functionality:-
- (i) one number reach and access to telephony while mobile
 - (ii) Call on the IP extension should ring simultaneously on mobile handset
 - (iii) Called party should be able to receive calls either from Mobile or his extension
 - (iv) User should be able to enable or disable this feature directly from their Mapped mobile phone themselves without any administrator intervention when they are away from their desk phone
 - (v) Dialing out via PBX to maintain Single Identity
 - (vi) Advanced Call Control – Users should be easily manipulate calls and choose their preferred phone for outbound or inbound calls.
 - (vii) Call-me-first on outbound calls – system should instruct the server to initiate 2 calls and bridge them (one call to self, a second to destination). Users can have the source phone ring, for example, their mobile, home or hotel phone, before it completes the 2nd leg to the destination number. This feature has the benefit of transferring high-cost mobile charges to low-cost services on the enterprise plan
- (f) **Digital Attendant Console.** Vendor should clearly note that it is a special Digital operator console asked for and should not provide any digital phone with extended Key modules. All advanced functionality of attendant like changing some of user's privileges from the attendant console etc should be possible The following features shall be provided:-
- (i) Hardware Features:-
 - (aa) 1 x 40 character LCD display
 - (ab) At least 12 fixed buttons & 15 programmable feature buttons
 - (ac) At least 10 fixed Direct Trunk Group Select buttons (DTGS)
 - (ad) Led indication for Major Alarm in the PBX

(ae) One expansion unit(Direct station select-DSS unit) with capability of providing busy lamp field status for at least 1300 or more extensions

(ii) Attendant features:-

- (aa) Attendant Call waiting
- (ab) Attendant Conference
- (ac) Attendant Control of Trunk Group Access
- (ad) Attendant Direct Extension Selection
- (ae) Attendant Intrusion
- (af) Attendant Lockout
- (ag) Attendant Override of Diversion
- (ah) Attendant Priority Queue
- (aj) Attendant recall
- (ak) Attendant Serial Calling

(iii) Operator Console shall support the following features.

(aa) The operator shall be able to transfer incoming calls to another number, internal or external.

(ab) The operator shall be able to camp on a call on to a busy extension.

(ac) The operator shall be able to make an internal/external call and shall be able to transfer it to another number.

(ad) The operator shall be able to hold calls and retrieve them later.

(ae) An extension shall be able to dial the operator by a general access code (say 9) and by an individual extension number.

(iv) Busy Lamp field – to indicate the busy/ free status of the defined extensions.

(v) The status of the number of the calls in the queue should be available to the attendant by just a press of a button.

(g) Following Attendant features should be provided :-

Features
a. AUTO-MANUAL SPLITTING
b. AUTO-START/DON'T SPLIT
c. BACK-UP ALERTING
d. BUSY VERIFICATION OF TERMINALS/TRUNKS

Features
e. CALL WAITING
f. CAMP-ON
g. CONFERENCE (6-party, minimum)
h. CONTROL OF TRUNK GROUP ACCESS
i. DIRECT STATION SELECTION w/BLF
j. DIRECT TRUNK GROUP SELECTION
k. DISPLAY
l. INTERCEPT TREATMENT
m. TRANSFER
n. INTRUSION
o. OVERFLOW
p. OVERRIDE OF DIVERSION FEATURES
q. PAGING/CODE CALL ACCESS
r. PRIORITY QUEUE
s. RECALL
t. RELEASE LOOP OPERATION
u. SERIAL OPERATION
v. STRAIGHT FORWARD OUTWARD COMPLETION
w. THROUGH DIALING
x. TRUNK-TO-TRUNK TRANSFER
y. TRUNK GROUP BUSY/WARNING INDICATOR

9. **Unified Messaging** It is envisaged to provide unified messaging to the users:-

(a) Voice Mail. Voice mail should be provided with following features:-

- (aa) 500 Voice mail boxes with 30 ports
- (ab) Auto forward to another extn. / Mail box in case of Busy or no answer
- (ac) Forwarded message to Numeric pager, mobile or email
- (ad) Call blocking / forwarding

- (ae) Voice mail box access from remote location through phone
- (af) Simultaneous message to pre-defined group of users
- (ag) Message Confirmation / Information
- (ah) Personalized Greetings message
- (aj) Playback message control (Rewind / Pause / FastForward, skip, etc)
- (ak) Message waiting Lights
- (al) Multiple Message Capability
- (am) Password protected mailboxes
- (an) Reply / Transfer to sender
- (ao) Mark mail as personal / urgent
- (ap) Leave message for caller
- (aq) Wake up call
- (ar) Recover accidentally deleted messages
- (as) Send a message copy to multiple users

(b) It should support following FAX features:-

- (i) At least 4 port Fax Server
- (ii) Send email messages to fax machines
- (iii) Receive fax messages to an email address
- (iv) Send/receive faxes within an email application such as Microsoft Exchange / Outlook, Lotus Notes
- (v) Send/receive faxes within a Web browser application
- (vi) Receive fax jobs and deliver them as TIFF files
- (vii) Track fax service activity and components with multiple, detailed logs and status reports

10. **UNIFIED AUDIO & WEB CONFERENCE BRIDGE**

(a) **Specifications for Audio Conferencing System.** A very high-end, feature-rich Audio Conferencing System, also used for Emergency Broadcasting if any disaster situation. Preferably this system needs to get integrated with the asked IP telephony system over IP/SIP. However the system should also support E1/ T1 interfaces. For tighter integration with the complete system Conference bridge should be from the same OEM. The following Advanced Conferencing Features should be provided in the proposed conferencing solution:-

- (i) Convenient reservation-less conferencing, allowing users to hold conferences any time, on demand.
- (ii) Conference scheduling via Microsoft Outlook or using a Web-based end user scheduling tool.
- (iii) Though there is only 30 port audio conference requirement but System should be able to scale to 300 participants in a single conference for future.
- (iv) Integration with Web Conferencing for a turnkey collaboration solution.
- (v) Touchtone (DTMF) commands for easy access to conference controls such as mute, lock conference, participant count, conference recording
- (vi) Optional conference settings that should be configured system-wide or by account, such as auto extension of conference duration or capacity, entry and exit tones, name announcements, and music on hold.

(vii) Enhanced capabilities such as recording and playback, reporting, and XML-based billing.

(viii) A Web-based administration interface support to makes it easy to manage the conferencing solution for:

(ix) Set up the conferencing system addresses, data retention, directories, blast dial and recording and playback controls.

(x) Configure conference bridges, maps, and prompts

(xi) Create and manage accounts

(xii) View alarms, logs, call lists, and so on

(xiii) Configure billing output and usage reports.

(b) **Moderator DTMF Features.** Moderators should be granted special privileges that can be activated using their touch-tone telephone. These features should include :-

(i) Conference Gain

(ii) Security

(iii) Lecture Mode

(iv) Moderator Blast Dial

(v) Headcount Request

(vi) Digital Record/Playback

(vii) Moderator Hang up – Toggle

(viii) Participant DTMF Features

(ix) Mute

(c) **Conference System Features.** The Conferencing Bridge should offer all of the functionality necessary to conduct productive and successful conferences, including:-

(i) **Auto-extend Duration and Ports Messages.** Auto-extend duration should automatically extend the call duration in 25-minute increments up to 4 times if ports and security code is available.

(ii) **Early Access Messages.** A system-wide setting should allow Participants into conference a per-set number of minutes early if there are no conflicts (customer configurable time, i.e. 15 minutes early).

(iii) **Name Record/Playback.** This feature should prompt a Participant upon entering a conference call to speak their name. The name is recorded and stored for line identification, allowing the Moderator of a call to track attendance without viewing activity from their PC.

(iv) **Voice Roster.** Voice Roster should utilize the Name Record/Playback feature for an automated roll call capability. Each line in the conference is identified with the recording of the Participant's name.

(v) **Entry/Exit Tones and Voice Messages.** Voice messages, alone or in conjunction with warning tones, should make Participants aware of conference events as they occur and also can prompt Participants for further action.

- (vi) **Music.** The Music feature provides for music on hold. This functionality should be used to entertain Participants that are waiting to enter the conference.
 - (vii) **Listen Mode.** This feature should allow conference operators to listen to individual lines or a range of lines to test the audio quality or detect disturbances without affecting conference activity.
 - (viii) **Conference Hang-up.** All of the lines in a specified conference may be hung up simultaneously at the conclusion of a conference.
 - (ix) **Conference Reports.** The Conferencing system should have reports that can be either available during (Conference Activity Report) following the conference conclusion (Past conference activity).
 - (x) **Digital Record/Playback.** The Conferencing Bridge should have a hard-drive configuration to provide up to 300 hours of digitally recorded conferences.
- (d) **Administration Features.** From the administration main menu, an Administrator should be able to configure the system to reflect specific requirements.
- (e) **Administration Reports.** Comprehensive system statistics are available to aid in system administration. These reports include Call Detail Reports (CDR), Conference Detail Reports (CODR), Conference Reports (COR), traffic statistics, and system configurations.
- (f) **Maintenance Features.**
- (i) **Power-Up Diagnostics.** Comprehensive system diagnostics should be performed when a system power-up is initiated. This confirms that every aspect of the system hardware is in order before continuing to the next step in the procedure.
 - (ii) **Remote Diagnostics.** All systems should be configured with a modem for remote access (by Support technicians) to the system.
 - (iii) **Maintenance Reports.** Reporting capabilities should also be available for system maintenance. These reports should include alarm reports, system message logs,
- (g) **Platform Capacity.** The Provided System/s should be capable to expand in future without change of quoted Server Hardware up to 300 SIP VoIP Audio Ports
- (h) **Platform Specifications.** It should have Open Standard Linux based Operating System to support core IP-based conferencing and ensure interoperable with any voice platform — SIP, T1, E1, ISDN, and so on. The system reliability must be 99.99%.

(j) **Specifications for Web Conferencing System.** The provided Web conferencing system should be tightly integrated to the audio conferencing system. It should be from the same OEM as that of IPT & Audio Conferencing system and should include following functionalities:-

- a) Though there is a current requirement of 30 ports but It should be able to scale up to 300 ports.
- b) It should allow to host and control a web conferencing service that is easy to use.
- c) It should have a class-leading, easy-to-use single-window interface. Users should feel confident to conduct and participate in their own web meetings.
- d) Attending a meeting should not require any software installation by the user. Users should be able to connect from even the most stringent of enterprise lockdown environments. For presenting/conducting a meeting, any software required should be downloaded on-demand.
- e) The conference window should have four main areas.
 - (aa) The Video Window
 - (ab) The Discussion Area
 - (ac) The Participants List
 - (ad) The Workspace Window
- f) It should be possible to share the Application with access rights to an individual.
- g) It should be possible to share the Desktop with access rights
- h) It should be possible to share the web browser/web content for viewing purpose.
- i) A Remote Computer accessed by Host / Presenter should be seen by everyone.
- j) It should have white board feature which provides plane board to write upon which is common for all
- k) It should have Notes functionality.
- l) It should be possible to display the slide show in a web conference.
- m) It should be possible to customize the size of viewing screen .
- n) It should provide area for participants to Chat
- o) It should be possible to chat with moderator only/public/Personal
- p) It should be possible to conduct census
- q) Host should be able to control the audio of Participants
- r) It should be possible for Host to pass-on the presenter rights to any participant.
- s) It should list all the users in the conference and indicates whether they are Presenters (who have the ability to control the conference) or Attendees
- t) It should be possible to record both audio and web conference including synchronized recording of the Telephone audio conf.
- u) Pre-scheduled & reservation less Conferences
- v) It should be possible to schedule Conferences through Web
- w) Sharing of Rich Media Content should be possible
- x) It should be possible for Presenter to eject the participant
- y) It should be possible to integrate the Web Conferencing server with Audio Conference bridges. Both the bridges should be of same make
- z) Encryption of Data shared in conference.
- aa) It should provide ability to conduct Q&A sessions over Web conference

11. **Auto Attendant.** It should be clearly noted that Auto attendant functionality should not be provided through Voice mail ports. It should be the inbuilt capability of the telephony system. Auto attendant capability should be provided with the following features:-

- (a) Should be of at least 30 ports.
- (b) Should be able to provide multiple greetings to different trunk groups
- (c) Should support pre recorded verbal messages
- (d) Should support recording of announcements as .wav files
- (e) Should support in-house recording of various customize greeting.
- (f) Should support Back up of recorded announcements on LAN

12. **Help Desk Functionality** To address the various needs/queries of the employees related to IT, HR, Logistics etc in a centralized manner it is envisaged to create centralized help desk. The Proposed telephony system should be provided with a contact center kind of a functionalities. Following call center functionality should be provided along with the system for 100 agents:-

(a) **Automatic Call Distribution (ACD) features.**

- (i) Agent Login IDs
- (ii) Music in Queue
- (iii) Auto-Available Split/Skill (AAS)
- (iv) Multiple Call Handling – On Request
- (v) Multiple Call Handling – Forced
- (vi) Service Observing
- (vii) Automatic Call Distribution (ACD)
- (viii) Most Idle Agent (MIA) Across Splits/Skills
- (ix) Agents in After Call Work (ACW) Considered Idle
- (x) Redirection of calls On No Answer
- (xi) Basic Measurements
- (xii) Holidays based call routing

(b) **Reporting.** System should give at least the following standard reporting for helpdesk agents :-

- (i) Total incoming calls received in group
- (ii) Average speed of answer
- (iii) Abandoned call
- (iv) Average abandoned time
- (v) Average talk time
- (vi) Average staff
- (vii) % service level of group

Note Any Additional hardware or software required to support above features and specifications shall be notified and supplied at no extra cost.

13. **Call Billing Software**

- (a) Have separate charging tables for guests & staff, and for specific extensions & junctions.
- (b) Have support for multiple Service Providers
- (c) Implement on-line Budget Control & Toll-Fraud Control
- (d) Get the following pre-defined Summaries, Reports & Analysis

(i) **MIS Reports.** Your wide range of reports should include Peak Hour/Day Analysis, Expensive Call Analysis, Incoming Call Analysis, Frequently Called Numbers and Beyond Office Hours.

(ii) **Graphs.** All reports could be viewed in a graphical format. We should be able to Just choose our choice - 2D or 3D, Bar or Pie - they should be available. Prints should come out full-page wide.

(ii) **Report Wizard.** The tool for customization should enable the user to just define to the system the requirements like the parameters, the sorting method and the display type and that should be sufficient to generate such user defined reports.

(iii) **Scheduler.** The user should be able to schedule the reports whenever required on a weekly, or fortnightly or monthly basis and the reports be generated and ready for user even in the form of an email.

(iv) **Reprocess Data.** The system should allow the user to reprocess call data to recalculate costs in case of any changes in tariff or pulse rates. The backup of unprocessed data will be used to re-calculate all costs.

(v) **On-Screen Critical Analyzer.** Viewing the reports in grid to perform a critical analysis of reports should be possible. Sorting & merging fields (columns) in a user defined manner should be provided for easy viewing and quick analysis.

(vi) **Exporting Reports.** All reports should have options of redirection to either a Window, Grid, Printer, or a large number of file formats, including word-processors and spread sheets.

14. **Video MCU.** A minimum 10 port Hardware based Video MCU for multiparty video Conferencing feature of Unified Communications solution having the following specifications:-

(a) **MCU System Capacity.** Up to 20 media and audio (H.323) resources and flexible resource capacity to support :-

- (i) Up to 10 HD resources for CP
- (ii) Up to 20 CIF resources for CP
- (iii) Up to 20 HD resources for VSW

Note: High Definition (HD) refers to high-quality picture resolution. An HD-compliant endpoint should connect to a conference at a resolution of 1280x720 (720p) and the bit rate of 1024 kbp ~2 Mb.

(b) **Audio Standards**. G.711a/u, G.722, G.728, G.722.1, G.722.1 Annex C, 22 kHz Stereo Surround

- (i) IVR prompts for auto attendance
- (ii) User and managed mute control
- (iii) DTMF support

(c) **Video Standards**

- (i) H.261, H.263, H.263+, H.263++, H.264
- (ii) From QCIF to 720
- (iii) Up to high definition (HD) 720p in continuous presence (CP) transcoding
- (iv) 720p Voice switching (VSW)
- (v) Up to 30 frames per second
- (vi) 16:9 and 4:3 aspect ratio
- (vii) H.239 content sharing resolution: VGA, SVGA, XGA
- (viii) H.239 Content in H264 Format

(d) **Management Tools**

- (i) Web-based management with support for multiple languages
- (ii) Administrator, operator, and chairman views
- (iii) System-generated emails to administrator in case of system alerts
- (iv) Onboard shelf management monitors and maintains hardware elements.
- (v) Complete XML API kit for 3rd party application integration.
- (vi) On-board scheduling option or scheduling and gatekeeping functions via external server.

(e) **Network Support**

- (i) IP H.323
- (ii) 10/100/1000 Mb interface
- (iii) 64 Kbps to 2 Mbps conference data rates

(f) **Transcoding**

- (i) Audio algorithms
- (ii) Video algorithms
- (iii) Networks
- (iv) Resolution
- (v) Frame rates
- (vi) Transcoding support up to HD resolution in CP

(g) **IP QoS**

- (i) Lost Packet Recovery (LPR)
- (ii) DiffServ
- (iii) IP Precedence
- (iv) Dynamic jitter buffer

(h) **Security**

- (i) AES media encryption
- (ii) Tiered permission levels include Administrator, Operator, Chairperson

(j) **Conferencing Highlights**

- (i) Conference Mode: On demand, password protected, schedule
- (ii) Integration with recording and streaming solution
- (iii) Unified conferencing (voice, video and data)
- (iv) Up to 24 different conference layouts
- (v) Personal layout
- (vi) Auto layout
- (vi) Layout range 1x1 to 4x4
- (vii) Using DTMF and FECC user should be able to perform actions on the conference.
- (viii) Dialing to the MCU IP Address or Prefix
- (ix) Operations during a call for Chair Person and Normal User
- (x) Chair person can invite participant by IP Address or E.164
- (xi) Camera Control
- (xii) Video Force
- (xiii) Mute & Block Audio
- (xiv) Mute Video
- (xv) Drop Participant
- (xvi) Terminate Conference
- (xvii) Video Invite

- (xviii) Layout skins
- (xix) Lecture and presentation mode
- (xx) Conference profiles
- (xxi) Far-end camera control (FECC)
- (xxii) Conference dial out and dial in
- (xxiii) Up to 1000 Meeting Rooms
- (xxiv) Advanced IVR flow
- (xxv) Multilingual site names
- (xxvi) H.239 support over cascaded links
- (xxvii) Address book—Up to 200 addresses
- (xxviii) CDR (Call Details Record)

(k) **H.239.** The H. 239 protocol compliant endpoint can simultaneously send and receive two channels of conference video streams: dynamic conference video and PC screen content.

(l) **Media Encryption.** The system should provide the AES 128-based media encryption mode, so the conferencing connection is more secure. There should be no port loss when AES encryption is turned on

(m) **IVR-Enabled Conferencing.** The Interactive Voice Response (IVR) function lets participants perform various operations during ongoing conferences according to voice prompts. The participants use their endpoints' keypads and remote control to interact with the conference's menu-driven scripts using DTMF codes.

(n) **Recording Link.** The MCU should support the function of recording link. It can work with the Recording and Streaming Server to record the content of the conference at the MCU.

(o) **Setting up conferences**

- **Instant Conference** – Convene an instant conference. The conference is deleted from the MCU right after its completion
- **Meeting Room** – The meeting room is stored in the MCU memory, without occupying any resource. It can be activated anytime
- **Reserve a Conference (optional)** – The reserved conference is stored at the MCU and occupies resource. The system automatically convenes the conference according to the reservation time

(p) **User Interfaces**

(i) **Web Interface.** The system provides the Web-based user-friendly operation interface. To simply and conveniently manage and monitor conferences, and maintain the device, the user only needs to access the Web client program of the MCU by using the IE browser at the PC. The Web interface is designed for the administrator and operator.

(ii) **Onscreen User Interface**. The Onscreen User Interface is a menu-based interface on the endpoint of the participant. The user can perform common conference operations through the endpoint's remote control and operation menus. The interface is designed for end users.

(q) **GUI Permission Levels** The MCU should have three levels :-

(i) **Chair Person** – A Chairperson can only manage ongoing conferences and participants. The Chairperson does not have access to the MCU configurations and utilities.

(ii) **Operator** – An Operator can perform all the MCU tasks a Chairperson does. In addition, Operators can also view the RMX configurations.

(iii) **Administrator** – An Administrator can perform all the tasks of Chairpersons and Operator user's. In addition, Administrators can perform all configuration and maintenance tasks.

(r) **Hardware Monitoring**

Control function to monitor the usage of the system CPU, memory and resource usage

(s) **Signaling Monitoring**

Monitors the LAN port connection status and gateway registration information of the device you are using

(t) **Operating System**. Linux or equivalent

(u) **CDR**

MCU should support the Call Detail Record (CDR) utility, which enables you to view summary information about conferences, and retrieve full conference information and archive it to a file. The file can be used to produce reports or can be exported to external billing programs. MCU should be able to store details of up to 1000 conferences

15. **UPS**. Minimum 10 KVA Online UPS 1+1 with minimum 8 hours battery backup to support the entire UC infrastructure being deployed along with its peripherals like PC, Servers, desktops etc. It should provide an IP integration to give an alarm and message to the systems to shut down properly at a user defined time interval before the low battery indication comes up. Specifications to be as under:-

(a) Redundancy	1+1
(b) Power	10KVA
(c) Input Voltage	230V Single Phase, 230/400 V 3 Phase
(d) Input Phases	Single or three Phase auto detection
(e) Input Voltage Range	180-275V, 310-475V
(f) Frequency	50 , 60 Hz auto selection
(g) Output	Pure sine wave
(h) Efficiency minimum	92%
(i) External battery packs	2 banks

(j) Battery backup	8 Hours
(k) Networking Port	RS 232, Ethernet and USB
(l) Protection	IP 2
(m) Acoustic Noise	< 50dBA
(n) Remote monitoring	SNMP / Web

16. **24 port Managed Layer 2 Switch**

(a) **Layer 2 Features:-**

- (i) IGMP Snooping v1,v2 (max. 256 groups)
- (ii) GMP snooping Fast Leave
- (iii) 802.1D Spanning tree
- (iv) 802.1w Rapid spanning tree
- (v) 802.1s Multiple spanning tree
- (vi) BPDU Filtering per port
- (vii) STP loopback detection
- (viii) 803.2ad link aggregation (8 ports per group/ 6 group per device)
- (ix) Port Mirroring (one to one, many to one)
- (x) Jumbo Frame(max. 2048 bytes)

(b) **VLAN:-**

- (i) Standard: 802.1Q
- (ii) Static VLAN groups: 4K
- (iii) Dynamic VLAN groups: 200
- (iv) GVRP

(c) **Quality of Service (QoS)**

- (i) 802.1p Priority Queues standart
- (ii) Number of 802.1p priority queues: 4 queues
- (iii) Support WRR/Strict Mode
- (iv) Packet Classification based on:
- (v) Switch Port
- (vi) VLAN ID
- (vii) TCP/UDP Port number
- (viii) MAC Address
- (ix) IPv4
- (x) 802.1p Priority
- (xi) TOS
- (xii) DSCP
- (xiii) Protocol Type
- (xiv) User Defined Packet Content

(d) **Access Control List**

- (i) Multi-layer ACL based on:
- (ii) Switch Port
- (iii) VLAN ID
- (iv) 802.1p Priority

- (v) MAC Address
 - (vi) IPv4
 - (vii) DSCP
 - (viii) Protocol Type
 - (ix) TCP/UDP Port Number
 - (x) User Defined Packet Content
 - (xi) Time-based ACL
- (e) **Network/Access Security**
- (i) RADIUS/TACACS+ Authentication for Management Access
 - (ii) RADIUS Accounting for Management Access
 - (iii) Port Security(max.16 MAC Entries per port)
 - (iv) 802.1X Port-based Access Control
 - (v) 802.1X MAC-Based Access Control
 - (vi) 802.1X Guest VLAN
 - (vii) SSH v1,v2 / SSL v3
 - (viii) CPU Interface filtering
 - (ix) Traffic Segmentation
 - (x) Broadcast Storm Control
 - (xi) Safeguard Engine
- (f) **Bandwidth Control**
- (i) Under 2Mbps: in step of 65 KB
 - (ii) Under 100Mbps: in step of 1 MB
 - (iii) Above 100Mbps: in step of 8 MB
- (g) **Management**
- (i) Single IP Management
 - (ii) Web-based GUI
 - (iii) CLI (Command Line Interface)
 - (iv) Telnet Client/server
 - (v) TFTP client
 - (vi) SNMP v1,v2c,v3
 - (vii) RMON V1,v2
 - (viii) BOOTP/DHCP Client
 - (ix) SNTP
 - (x) SYSLOG
 - (xi) Dual Image
 - (xii) Port Description
 - (xiii) Web GUI traffic/CPU monitoring
 - (xiv) SNMO trap on MAC notification
 - (xv) DHCP Auto-Configuration
 - (xvi) DHCP Relay
 - (xvii) DHCP relay option 82
 - (xviii) SMTP client(e-mail notification)

(h) **MIB Support**

- (i) MIBII (RFC 1213)
- (ii) Bridge MIB (RFC1493)
- (iii) SNMP v2 MIB (RFC 1907)
- (iv) RMON MIB (RFC 1757,2819)
- (v) RMON v2 MIB Probe Config group(RFC 2021)
- (vi) 802.1p MIB (RFC 2618)
- (vii) IF MIB (RFC 2233,2863)
- (viii) RADIUS Authentication Client MIB (RFC 2620)
- (ix) Ping & TRACEROUTE MIB (RFC 2925)
- (x) Private MIB

3. **Two-Bid System.** In respect of Two-bid system, Bidders are required to furnish clause by clause compliance of specifications bringing out clearly the deviations from specification, if any. The Bidders are advised to submit the compliance statement in the following format along with Technical Bid.

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
2.	<u>Unified Communication Solution</u>		
(a)	IP Telephony		
(b)	Reliability/High Availability 99.99% , 1:1 redundancy mode Duplicated Links / Nics for signaling from all the Servers to the Gateways		
(c)	Call Processing Capacity BHCC 2.5 Lacs		
(d)	System Scalability minimum of 15000 or more IP phone		
(e)	Conferencing min 6 party & 30 concurrent conf		
(f)	Endpoints IP, Analog, Digital & Soft Phones		
(g)	Auto – diagnostics		
(h)	Security		
(i)	Interface Compatibility E1 trunk, ISDN-PRI with QSIG, H323 and SIP trunks		
(k)	Flexible Dialling Plan		
(l)	Networking Protocol – QSIG		
3.	IP Telephony VOICE Gateway		
(a)	The media gateway should provide 19” rack mountable minimum 10 slots for E1/T1 FXO, FXS		
(b)	H.323 Gatekeeper Architecture		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
(c)	H.323 DSP farm		
4.	Remote Location Unit extended over copper upto 10 Km with 24 ports IP / Analog		
5.	<u>System Telephony Features</u>		
(a)	Station Features to be provided		
	ADD-ON CONFERENCE (6 party, minimum)		
	AUTOMATIC CALLBACK		
	AUTHORIZATION CODES		
	AUTOMATIC ROUTE SELECTION FOR 2000 USERS		
	BRIDGED CALL APPEARANCE		
	BOSS SECRETARY FEATURE		
	CALL COVERAGE INTERNAL & EXTERNAL		
	CALL COVERAGE TIME OF DAY/DAY OF WEEK		
	CLASS OF SERVICE		
	CLASS OF RESTRICTION		
	CALL FORWARDING - ALL CALLS/ BUSY/DON'T ANSWER		
	CRISIS ALERT		
	CALL PARK		
	CALL PICKUP		
	CALL TRANSFER		
	CALL WAITING		
	CLI (CALLER LINE IDENTIFICATION) ON ANALOG & DIGITAL PHONES FOR INTERNAL CALLS & EXTERNAL PRI CALLS.		
	CUSTOMER STATION REARRANGEMENT		
	DIAL BY NAME		
	DISCRETE CALL OBSERVING		
	DISTINCTIVE RINGING		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
	ELAPSED CALL TIMER		
	EMERGENCY ACCESS TO ATTENDANT		
	EXECUTIVE BUSY OVERRIDE		
	FACILITY BUSY INDICATION		
	HANDS-FREE DIALING		
	GROUP PAGING		
	INDIVIDUAL ATTENDANT ACCESS		
	LEAST COST ROUTING		
	LAST NUMBER REDIALED		
	LINE LOCKOUT		
	MALICIOUS CALL TRACE		
	MEET ME CONFERENCING (6-party, minimum)		
	MESSAGE WAITING ACTIVATION		
	MUSIC ON HOLD		
	OFF-HOOK ALARM		
	PADLOCK		
	PERSONAL CO LINE (PRIVATE LINE)		
	PERSONAL SPEED DIALING		
	PERSONALIZED RINGING		
	PRIORITY CALLING		
	PRIVACY - ATTENDANT LOCKOUT		
	PRIVACY - MANUAL EXCLUSION		
	VOICE ACTIVATED DILAING FROM IP PHONES		
	SEND ALL CALLS		
	TRUNK FLASH		
	TRUNK-TO-TRUNK CONNECTIONS		
	SILENT PAGING		
	AUTOMATED ATTENDANT		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
	AUTOMATIC CALL DISTRIBUTION		
	AUTOMATIC CAMP-ON		
	AUTOMATIC CIRCUIT ASSURANCE		
	AUTOMATIC ROUTE SELECTION – BASIC		
	CALL-BY-CALL SERVICE SELECTION		
	CALL LOG		
	DELAYED RINGING		
	DIRECT INWARD DIALING		
	DID CALL WAITING		
	DIRECT INWARD SYSTEM ACCESS		
	DIRECT OUTWARD DIALING		
	FORCED ENTRY ACCOUNT CODES		
	HUNTING		
	INTEGRATED SYSTEM DIRECTORY		
	MUSIC ON HOLD		
	NIGHT SERVICE –FIXED		
	NIGHT SERVICE – PROGRAMMABLE		
	ROUTE ADVANCE		
	SYSTEM STATUS REPORT		
	TIME OF DAY ROUTING		
	TRUNK ANSWER ANY STATION		
	TRUNK CALLBACK QUEUING		
6.	System Administration/Maintenance Features		
7.	<u>Telephone Equipment</u>		
(a)	IP Phone Qty 340		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
(b)	Unified Soft phone Client Qty 150		
(c)	Unified Web based Client Qty 150		
(d)	Unified IP Mobile Client for the smart phones Qty 150		
(e)	Digital Attendant Console		
(f)	Following Attendant features should be provided		
	z. AUTO-MANUAL SPLITTING		
	aa.AUTO-START/DON'T SPLIT		
	bb.BACK-UP ALERTING		
	cc. BUSY VERIFICATION OF TERMINALS/TRUNKS		
	dd.CALL WAITING		
	ee.CAMP-ON		
	ff. CONFERENCE (6-party, minimum)		
	gg. CONTROL OF TRUNK GROUP ACCESS		
	hh. DIRECT STATION SELECTION w/BLF		
	ii. DIRECT TRUNK GROUP SELECTION		
	jj. DISPLAY		
	kk. INTERCEPT TREATMENT		
	ll. TRANSFER		
	mm. INTRUSION		
	nn.OVERFLOW		
	oo.OVERRIDE OF DIVERSION FEATURES		
	pp.PAGING/CODE CALL ACCESS		
	qq.PRIORITY QUEUE		
	rr. RECALL		
	ss. RELEASE LOOP OPERATION		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
	tt. SERIAL OPERATION		
	uu. STRAIGHT FORWARD OUTWARD COMPLETION		
	vv. THROUGH DIALING		
	ww. TRUNK-TO-TRUNK TRANSFER		
	(xxv) TRUNK GROUP BUSY/WARNING INDICATOR		
8.	<u>Unified Messaging</u>		
(a)	Voice Mail. 500 Voice mail boxes with 30 ports		
(b)	It should have at least 4 port Fax Server		
9.	<u>UNIFIED AUDIO & WEB CONFERENCE BRIDGE</u>		
(a)	Specifications for Audio Conferencing System		
(b)	Moderator DTMF Features		
(c)	Conference System Features		
(d)	Administration Features		
(e)	Administration Reports		
(f)	Maintenance Features		
(g)	Platform Capacity		
(h)	Platform Specifications. Open Standard based OS reliability 99.99%		
(j)	Specifications for Web Conferencing System		
10.	<u>Auto Attendant Qty 01 for at least 30 ports</u>		
11.	<u>Help Desk Functionality for 100 agents</u>		
(a)	Automatic Call Distribution (ACD) features		

S No	Specifications as per corresponding para No of the Technical details which is mentioned at Page No 6 Para 2	Compliance to RFP specification – whether Yes / No	In case of noncompliance, deviation from RFP to be specified in unambiguous terms
(b)	Reporting		
12.	<u>Call Billing Software</u>		
13.	<u>Video MCU with the following:-</u>		
(a)	MCU System Capacity Up to 20 media and audio (H.323)		
(b)	Audio Standards		
(c)	Video Standards		
(d)	Management Tools		
(e)	Network Support		
(f)	Transcoding		
(g)	IP QoS		
(h)	Security		
(j)	Conferencing Highlights		
(k)	H.239		
(l)	Media Encryption		
(m)	IVR-Enabled Conferencing		
(n)	Recording Link		
(o)	Setting up conferences		
(p)	User Interfaces		
(q)	GUI Permission Levels		
(r)	Hardware Monitoring		
(s)	Signaling Monitoring		
(t)	Operating System		
(u)	CDR		
14.	<u>UPS 10 KVA Online UPS 1+1 with minimum 8 hours battery backup</u>		
15.	<u>24 port Managed Layer 2 Switches with the following:-</u>		
(a)	Layer 2 Features		
(b)	VLAN 802.1Q, VLAN groups: 4K		
(c)	Quality of Service (QoS) 802.1p 4 queues		
(d)	Access Control List		
(e)	Network/Access Security		
(f)	Bandwidth Control		
(g)	Management		
(h)	MIB Support		

4. **Delivery Period.** Delivery period for supply of items would be **12 Weeks** from the effective date of contract. Please note that Contract can be cancelled unilaterally by the Buyer in case items are not received within the contracted delivery period. Extension of contracted delivery period will be at the sole discretion of the Buyer, with applicability of LD clause.

5. **INCOTERMS FOR DELIVERY AND TRANSPORTATION.** ('E' / 'F' / 'C' / 'D' Terms Unless otherwise specifically agreed to by the Buyer and the seller and incorporated in the contract, the applicable rules & regulations for transportation of goods from foreign countries will be as per the contemporary version of International Commercial Terms (INCOTERMS) evolved by International Chamber of Commerce, Paris. Definition of Delivery Period is given below:-

S No	TERMS OF DELIVERY	DATE OF DELIVERY
(a)	Local Delivery at site	The date on which the delivery is made at the consignee's site mentioned in the contract.
(b)	Ex- works	The date the Seller delivers the goods to the buyer at sellers factory /premises.
(c)	F.O.R Station of Dispatch	The date on which the goods are placed by the Seller on rail with clear Rail Receipt.
(d)	By Post Parcel	The date of postal receipt.
(e)	Dispatch by Air	The date of Air –way Bill.
(f)	F.O.R. Destination	The date on which the goods reach the destination railway station specified in the contract, unless otherwise stated.
(g)	C.I.P Destination	The date on which the delivery is effected at the destination mentioned in the contract.
(h)	F.A.S. Port of Shipment	The date on which the Seller deliver the goods alongside the vessel at the specified port of shipment. This date is reflected in Bill of Lading.
(j)	F.O.B. Port of Shipment	The date on which the Seller delivers the goods on vessel's board at the specified port of shipment. This date is reflected in Bill of Lading.
(k)	C.I.F. Port of Destination	The date on which the goods actually arrived at the Destination Port.

Note: The FAS, FOB & CIF terms of delivery are applicable for goods which are directly imported from foreign countries against the subject contract and not imported already by the Seller under its own arrangement.

The CIP terms of delivery may be applied both for domestic as well as imported supplies.

6. **Consignee details** : **COMMANDANT,**
NATIONAL DEFENCE ACADEMY,
POST OFFICE : NDA KHADAKWASLA,
PUNE - 411023
MAHARASHTRA,
INDIA

PART III – STANDARD CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.

1. **Law.** The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.

2. **Effective Date of the Contract.** The contract shall come into effect on the date of signatures of both the parties on the contract (Effective Date) and shall remain valid until the completion of the obligations of the parties under the contract. The deliveries and supplies and performance of the services shall commence from the effective date of the contract.

3. **Arbitration.** All disputes or differences arising out of or in connection with the Contract shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to construction or performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration is as per Forms attached at **Appendix `A`**.

4. **Penalty for use of Undue influence.** The Seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offence by the Seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

5. **Agents / Agency Commission.** The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores/provider of the services referred to in this Contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the Seller; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller agrees that if it is established

at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable to refund that amount to the Buyer. The Seller will also be debarred from entering into any supply Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate. The Buyer will also have the right to recover any such amount from any contracts concluded earlier with the Government of India.

6. **Access to Books of Accounts.** In case it is found to the satisfaction of the Buyer that the Seller has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the Seller, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information.

7. **Non-disclosure of Contract documents.** Except with the written consent of the Buyer / Seller, other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.

8. **Liquidated Damages.** In the event of the Seller's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc as specified in this contract, the Buyer may, at his discretion, withhold any payment until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of 0.5% of the contract price of the delayed/undelivered stores/services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than 10% of the value of delayed stores.

9. **Termination of Contract.** The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases :-

- (a) The delivery of the material is delayed for causes not attributable to Force Majeure for more than (Three months) after the scheduled date of delivery.
- (b) The Seller is declared bankrupt or becomes insolvent.
- (c) The delivery of material is delayed due to causes of Force Majeure by more than (Six months) provided Force Majeure clause is included in contract.
- (d) The Buyer has noticed that the Seller has utilised the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual/company etc.
- (e) As per decision of the Arbitration Tribunal.

10. **Notices.** Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.

11. **Transfer and Sub-letting.** The Seller has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.

12. **Patents and other Industrial Property Rights.** The prices stated in the present Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.

13. **Amendments.** No provision of present Contract shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both the parties and which expressly states to amend the present Contract.

14. **Taxes and Duties.**

(a) **In respect of Foreign Bidders.** All taxes, duties, levies and charges which are to be paid for the delivery of goods, including advance samples, shall be paid by the parties under the present contract in their respective countries.

(b) **In case of Indigenous Bidders.**

(i) **General**

(aa) If Bidder desires to ask for excise duty or Sales Tax/VAT extra the same must be specifically stated. In the absence of any such stipulation, it will be presumed that the prices include all such charges and no claim for the same will be entertained.

(ab) If reimbursement of any Duty/Tax is intended as extra over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of such duty/tax will be entertained after the opening of tenders.

(ac) If a Bidder chooses to quote a price inclusive of any duty /tax and does not confirm inclusive of such duty /tax so included is firm and final, he should clearly indicate the rate of such duty/tax and quantum of such duty/fax included in the price. Failure to do so may result in ignoring of such offers summarily.

(ad) If a Bidder is exempted from payment of any duty/tax upto any value of supplies from them, he should clearly state that no such duty/tax will be charged by him up to the limit of exemption which he may have. If any concession is available in regard to rate/quantum of any Duty/tax, it should be brought out clearly. Stipulations like, the said duty/tax was presently not applicable but the same will be charged if it becomes leviable later on, will not be accepted unless in such cases it is clearly stated by a Bidder that such duty/tax will not be charged by him even if the same becomes applicable later on. In respect of the Bidders, who fail to comply with this requirement, their quoted prices shall be loaded with the quantum of such duty/tax which is their normally applicable on the item in question for the purpose of comparing their prices with other Bidders.

(ae) Any change in any duty/tax upward/downward as a result of any statutory variation in excise taking place within Supply Order terms shall be allowed to the extent of actual quantum of such duty/tax paid by the supplier. Similarly, in case of downward revision in any duty/tax, the actual quantum of reduction of such duty/tax shall be reimbursed to the Buyer by the Seller. All such adjustments shall include all relief's, exemptions, rebates, Concession etc. if any obtained by the Seller.

(ii) **Customs Duty**

(aa) For imported stores offered against forward delivery, the Bidder shall quote prices thereof exclusive of customs duty. The Bidder shall specify separately the C.I.F. prices and total amount of customs duty payable. They will also indicate correctly the rate of customs duty applicable along with Indian Customs Tariff Number. Customs duty as actually paid will be reimbursed on production of necessary documents i.e. (i) Triplicate copy of the bill of entry;

(ii) copy of bill of lading; (iii) a copy of foreign principal's invoice. However, if the Bidder imports the stores in question against his own commercial quota Import Licences, he will also be required to submit in addition the triplicate copy of bills of entry etc. a certificate from his Internal Auditor on the bill itself, to the effect that the following items/quantity in the bill of entry related to the stores imported against Defence Buyer Supply Order number..... dated.....

(ab) Subsequent to the reimbursement of customs duty, the Bidder will submit to the concerned Payment Authority a certificate to the effect that he has not obtained any refund of customs duty subsequent to the payment of duty to the Customs authority by him. In addition, he shall also submit to the Paying Authority concerned a certificate immediately after a period of three months from the date of payment of the duty to customs authorities to the effect that he has not applied for refund of the customs duty subsequent to the payment of duty to the customs authorities by him.

(ac) In case the Bidder obtains any refund of customs duty, subsequently to the payment of the same by him to the customs authorities and reimbursement of the customs duty to him by the Payment Authority, he should forthwith furnish the details of the refund obtained and afford full credit of the same to the Buyer.

(iii) **Excise Duty**

(aa) Where the excise duty is payable on advalorem basis, the Bidder should submit along with the tender, the relevant form and the Manufacturer's price list showing the actual assessable value of the stores as approved by the Excise authorities.

(ab) Bidders should note that in case any refund of excise duty is granted to them by Excise authorities in respect of Stores supplied under the Supply Order they will pass on the credit to the Buyer immediately along with a certificate that the credit so passed on relates to the Excise Duty, originally paid for the stores supplied under the Supply Order. In case of their failure to do so, within 10 days of the issue of the excise duty refund orders to them by the Excise Authorities the Buyer would be empowered to deduct a sum equivalent to the amount refunded by the Excise Authorities without any further reference to them from any of their outstanding bills against the Supply Order or any other pending Government Supply Order and that no disputes on this account would be raised by them.

(ac) The Seller is also required to furnish to the Paying Authority the following certificates:-

(*) Certificate with each bill to the effect that no refund has been obtained in respect of the reimbursement of excise duty made to the Seller during three months immediately preceding the date of the claim covered by the relevant bill.

(**) Certificate as to whether refunds have been obtained or applied for by them or not in the preceding financial year after the annual Audit of their accounts also indicating details of such refunds/applications, if any.

(***) A certificate along with the final payment bills of the Seller to the effect whether or not they have any pending appeal/ protest for refund or partial refund of excise duties already reimbursed to the Seller by the Government pending with the Excise authorities and if so, the nature, the amount involved, and the position of such appeals.

(****) An undertaking to the effect that in case it is detected by the Government that any refund from Excise Authority was obtained by the Seller after obtaining reimbursement from the Paying Authority, and if the same is not immediately refunded by the Seller to the Paying Authority giving details and particulars of the transactions, Paying Authority will have full authority to recover such amounts from the Seller's outstanding bills against that particular Supply Order

or any other pending Government Supply Orders and that no dispute on this account would be raised by the Seller.

(iv) Unless otherwise specifically agreed to in terms of the Supply Order, the Buyer shall not be liable for any claim on account of fresh imposition and/or increase of Excise Duty on raw materials and/or components used directly in the manufacture of the Supply Ordered stores taking place during the pendency of the Supply Order.

(v) **Sales Tax / VAT**

(aa) If it is desired by the Bidder to ask for Sales tax / VAT to be paid as extra, the same must be specifically stated. In the absence of any such stipulation in the bid, it will be presumed that the prices quoted by the Bidder are inclusive of sales tax and no liability of sales tax will be developed upon the Buyer.

(ab) On the Bids quoting sales tax extra, the rate and the nature of Sales Tax applicable at the time of supply should be shown separately. Sales tax will be paid to the Seller at the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax and the same is payable as per the terms of the contract.

(vi) **Octroi Duty & Local Taxes**

(aa) Normally, materials to be supplied to Government Departments against Government Contracts are exempted from levy of town duty, Octroi Duty, Terminal Tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such Exemption only on production of such exemption certificate from any authorised officer. Seller should ensure that stores ordered against contracts placed by this office are exempted from levy of Town Duty/Octroi Duty, Terminal Tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the Buyer, to avoid payment of such local taxes or duties.

(ab) In case where the Municipality or other local body insists upon payment of these duties or taxes the same should be paid by the Seller to avoid delay in supplies and possible demurrage charges. The receipt obtained for such payment should be forwarded to the Buyer without delay together with a copy of the relevant act or bylaws/ notifications of the Municipality of the local body concerned to enable him to take up the question of refund with the concerned bodies if admissible under the said acts or rules.

PART IV – SPECIAL CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of Special Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

1. **Performance Guarantee.**

(a) **Indigenous cases.** The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 10% of the contract value within 30 days of receipt of the confirmed order. Performance Bank Guarantee should be valid up to 60 days beyond the date of warranty. The specimen of PBG is given as **Appendix 'A'**

(b) **Foreign cases.** The Seller will be required to furnish a Performance Guarantee by way of a Bank Guarantee from Seller's Bank through an internationally recognized first class Bank in favour of the Government of India, Ministry of Defence to be confirmed by public sector bank or a private sector bank authorized to undertake government transactions (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) equal to 10(five percent) of the total value of this contract i.e. for US \$ (US Dollars (in words) only). Performance Bank Guarantee should be valid up to 60 days beyond the date of warranty. The Performance Bank Guarantee shall be considered open upon receipt by the Buyer's Bank. In case any claims or any other contract obligations are outstanding, the Seller will extend the Performance Bank Guarantee as asked for by the Buyer till such time as the Seller settles all claims and completes all contract obligations. The Performance Bank Guarantee will be subject to encashment by the Buyer, in case the conditions regarding adherence to delivery schedule, settlement of claims and other provisions of the contract are not fulfilled by the Seller. The specimen of PBG is given as **Appendix 'B'**

2. **Option Clause.** The contract will have an Option Clause, wherein the Buyer can exercise an option to procure an additional 50% of the original contracted quantity in accordance with the same terms & conditions of the present contract. This will be applicable within the currency of contract. The Bidder is to confirm the acceptance of the same for inclusion in the contract. It will be entirely the discretion of the Buyer to exercise this option or not.

3. **Tolerance Clause.** To take care of any change in the requirement during the period starting from issue of RFP till placement of the contract, Buyer reserves the right to 10% plus/minus increase or decrease the quantity of the required goods upto that limit without any change in the terms & conditions and prices quoted by the Seller. While awarding the contract, the quantity ordered can be increased or decreased by the Buyer within this tolerance limit.

4. **Payment Terms for indigenous sellers.** It will be mandatory for the Bidders to indicate their bank account numbers and other relevant payment details so that payments could be made through ECS/EFT mechanism instead of payment through cheques, wherever feasible. A copy of the model mandate form prescribed by RBI to be submitted by Bidders for receiving payments through ECS as attached at **Appendix `C`**. The payment will be made as per the following terms, on production of the requisite documents:-

- (a) 60% of the total project cost will be paid on delivery of Hardware, Networking components and software.
- (b) 20% of the total project cost will be paid on successful installation and commissioning of Hardware, Software and Networking Components.
- (c) 10% of the total project cost will be paid after acceptance testing procedure.
- (d) 10% of the total project cost will be paid on satisfactory working of the equipment for a period of one month from the date of acceptance.

3. **Payment Terms for Foreign Sellers.** The payment will be made as per the following terms, on production of the requisite documents:-

- (a) 60% of the total project cost will be paid on delivery of Hardware, Networking components and software.
- (b) 20% of the total project cost will be paid on successful installation and commissioning of Hardware, Software and Networking Components.
- (c) 10% of the total project cost will be paid after acceptance testing procedure.
- (d) 10% of the total project cost will be paid on satisfactory working of the equipment for a period of one month from the date of acceptance.

4. **Advance Payments.** No advance payment(s) will be made.

5. **Paying Authority.**

(a) **Indigenous Sellers.** The payment will be released through Pr CDA(SC) on completion of the projects. The payment of bills will be made on submission of the following documents by the Seller through purchaser to the Paying Authority along with the bill:-

- (i) Ink-signed copy of contingent bill / Seller's bill.
- (ii) Ink-signed copy of Commercial invoice / Seller's bill.
- (iii) Copy of Supply Order/Contract with U.O. number and date of IFA's concurrence, where required under delegation of powers.

- (iv) CRVs in duplicate.
- (v) Inspection note.
- (vi) Claim for statutory and other levies to be supported with requisite documents / proof of payment such as Excise duty challan, Customs duty clearance certificate, Octroi receipt, proof of payment for EPF/ESIC contribution with nominal roll of beneficiaries, etc as applicable.
- (vii) Exemption certificate for Excise duty / Customs duty, if applicable.
- (viii) Bank guarantee for advance, if any.
- (ix) Guarantee / Warranty certificate.
- (x) Performance Bank guarantee / Indemnity bond where applicable.
- (xi) DP extension letter with CFA's sanction, U.O. number and date of IFA's concurrence, where required under delegation of powers, indicating whether extension is with or without LD.
- (xii) Details for electronic payment viz Account holder's name, Bank name, Branch name and address, Account type, Account number, IFSC code, MICR code (if these details are not incorporated in supply Order/ contract).
- (xiii) Any other document / certificate that may be provided for in the Supply Order / Contract.
- (xiv) User Acceptance.
- (xv) Xerox copy of PBG.

(b) **Foreign Sellers.** Paid shipping documents are to be provided to the Bank by the Seller as proof of dispatch of goods as per contractual terms so that the Seller gets payment from LC. The Bank will forward these documents to the Buyer for getting the goods/stores released from the Port/Airport. Documents will include:-

- (i) Clean on Board Airway Bill/Bill of Lading
- (ii) Original Invoice
- (iii) Packing List
- (iv) Certificate of Origin from Seller's Chamber of Commerce, if any.
- (v) Certificate of Quality and current manufacture from OEM.
- (vi) Dangerous Cargo certificate, if any.
- (vii) Insurance policy of 110% if CIF / CIP contract
- (viii) Certificate of Conformity & Acceptance Test at PDI, if any.
- (ix) Physio-sanitary / Fumigation Certificate, if any.
- (x) Performance Bond / Warranty Certificate

6. **Fall clause** - The following Fall clause will form part of the contract placed on successful Bidder -

(a) The price charged for the stores supplied under the contract by the Seller shall in no event exceed the lowest prices at which the Seller sells the stores or offer to sell stores of identical description to any persons/Organisation including the purchaser or any department of the Central government or any Department of state government or any statutory undertaking the central or state government as the case may be during the period till performance of all supply Orders placed during the currency of the rate contract is completed.

(b) If at any time, during the said period the Seller reduces the sale price, sells or offer to sell such stores to any person/organisation including the Buyer or any Deptt, of central Govt. or any Department of the State Government or any Statutory undertaking of the Central or state Government as the case may be at a price lower than the price chargeable under the contract, the shall forthwith notify such reduction or sale or offer of sale to the Director general of Supplies & Disposals and the price payable under the contract for the stores of such reduction of sale or offer of the sale shall stand correspondingly reduced. The above stipulation will, however, not apply to:--

- (i) Exports by the Seller.
 - (ii) Sale of goods as original equipment at price lower than lower than the prices charged for normal replacement.
 - (iii) Sale of goods such as drugs which have expiry dates.
 - (iv) Sale of goods at lower price on or after the date of completion of sale/placement of the order of goods by the authority concerned under the existing or previous Rate Contracts as also under any previous contracts entered into with the Central or State Govt. Depts, including their undertakings excluding joint sector companies and/or private parties and bodies.
- (c) The Seller shall furnish the following certificate to the Paying Authority along with each bill for payment for supplies made against the Rate contract – “We certify that there has been no reduction in sale price of the stores of description identical to the stores supplied to the Government under the contract herein and such stores have not been offered/sold by me/us to any person/ organisation including the purchaser or any department of Central Government or any Department of a state Government or any Statutory Undertaking of the Central or state Government as the case may be upto the date of bill/the date of completion of supplies against all supply orders placed during the currency of the Rate Contract at price lower than the price charged to the government under the contract except for quantity of stores categories under sub-clauses (a),(b) and (c) of sub-para (ii) above details of which are given below....”.

7. **Exchange Rate Variation Clause:-**

(a) Detailed time schedule for procurement of imported material and their value at the FE rates adopted for the contract is to be furnished by the foreign Bidder as per the format given below :-

YEAR WISE AND MAJOR CURRENCY WISE IMPORT CONTENT BREAK UP

Year	Total cost of material	FE content outflow (Equivalent in Rupees - crores)		
		Dollar denominated	Euro denominated	Other currencies denominated

(b) ERV will be payable/refundable depending upon movement of exchange rate with reference to exchange rate adopted for the valuation of the contract. Base exchange rate of each major currency used for calculating FE content of the contract will be the BC Selling rate of the State Bank of India on the date of the opening of Price Bids.

(c) The base date for ERV would be contract date and variation on the base date will be given upto the midpoint manufacture unless Bidder indicates the time schedule within which material will be exported by them. Based on information given above, the cut off date/dates within the Delivery schedule for the imported material will be fixed for admissibility of ERV.

(d) ERV clause will not be applicable in case delivery periods for imported content are subsequently to be refixed /extended.

(e) The impact of notified Exchange Rate Variation shall be computed on an yearly basis for the outflow as mentioned by the vendor in their tender and shall be paid / refunded before the end of the financial year based on the certification of the Buyer.

8. **Risk & Expense clause.**

(a) Should the stores or any installment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any installment thereof, the Buyer shall after granting the Seller 45 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.

(b) Should the stores or any installment thereof not perform in accordance with the specifications / parameters provided by the SELLER during the check proof tests to be done in the BUYER's country, the BUYER shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.

(c) In case of a material breach that was not remedied within 45 days, the BUYER shall, having given the right of first refusal to the SELLER be at liberty to purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to make good:-

(i) Such default.

(ii) In the event of the contract being wholly determined the balance of the stores remaining to be delivered there under.

8. **Force Majeure clause**

(a) Neither party shall bear responsibility for the complete or partial non-performance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation,

blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.

(b) In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

(c) The party for which it becomes impossible to meet obligations under this contract due to Force Majeure conditions, is to notify in written form the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from the moment of their beginning.

(d) Certificate of a Chamber of Commerce (Commerce and Industry) or other Competent authority or organization of the respective country shall be a sufficient proof of commencement and cessation of the above circumstances.

(e) If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto reserves the right to terminate the contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.

9. **Specification.** The Seller guarantees to meet the specifications as per Part-II of RFP and to incorporate the modifications to the existing design configuration to meet the specific requirement of the Buyer Services as per modifications/requirements recommended after the Maintenance Evaluation Trials. All technical literature and drawings shall be amended as the modifications by the Seller before supply to the Buyer. The Seller, in consultation with the Buyer, may carry out technical upgradation/alterations in the design, drawings and specifications due to change in manufacturing procedures, indigenisation or obsolescence. This will, however, not in any way, adversely affect the end specifications of the equipment. Changes in technical details, drawings repair and maintenance techniques alongwith necessary tools as a result of upgradation/alterations will be provided to the Buyer free of cost within Ten days of affecting such upgradation /alterations. This will however be at the sole discretion of the buyer.

10. **OEM Certificate.** In case the Bidder is not the OEM, the agreement certificate with the OEM for sourcing the spares shall be mandatory. However, where OEMs do not exist, minor aggregates and spares can be sourced from authorized vendors subject to quality certification.

11. **Export License.** The Bidders are to confirm that they have requisite export license from their Government and Authorization from the manufacturing plant, in case they are not the OEM, to export the military/ non-military goods to India.

12. **Earliest Acceptable Year of Manufacture.** _____ Quality /Life certificate will need to be enclosed with the Bill.

13. **Buyer Furnished Equipment.** The following equipment will be provided by the Buyer at his expense to the Seller:-

14. **Transportation.** The following Transportation clause will form part of the contract placed on successful Bidder:-

(a) **CIF/CIP** – The stores shall be delivered CIF/CIP _____(Port of destination). Seller will bear the costs and freight necessary to bring the goods to the port of destination. The Seller also has to procure marine insurance against the Buyer's risk of loss of or damage to goods during the carriage. The Seller will contract for insurance and pay the insurance premium. Seller is also required to clear the goods for export. The stores shall be delivered to the Buyer by Indian ships only. The date of issue of the Bill of Lading shall be considered as the date of delivery. No part shipment of goods would be permitted. Trans-shipment of goods would not be permitted. In case it becomes inevitable to do so, the Seller shall not arrange part-shipments and/or transshipment without the express/prior written consent of the Buyer. The goods should be shipped by Indian vessels only. However, the Seller can still utilize the services of the MoD, Govt of India Freight Forwarding Agent details for which will be provided by the Buyer. Seller will be required to communicate the following information invariably by telex/signed in case of import of Defence Stores being brought in commercial ships to Embarkation Head Quarters concerned well in advance before the Ship sails the port of loading:-

- (i) Name of the Ship
- (ii) Port of Loading and name of Country.
- (iii) ETA at port of Discharge i.e. Bombay, Calcutta, Madras and Cochin.
- (iv) Number of Packages and weight.
- (v) Nomenclature and details of major equipment.
- (vi) Special instructions, if any stores of sensitive nature requiring special attention.

OR

(b) **FOB/FAS** -- The stores shall be delivered FOB (as per INCOTERMS 2000, or latest version). The stores shall be delivered to the Buyer by Indian Ships only. In case of FOB/FAS contracts, shipping arrangements shall be made by the Shipping Co-ordination and Chartering Division/Shipping Co-ordination and Officer, Ministry of Surface Transport, New Delhi, India. Notice about the readiness of Cargo for shipment shall be given by the supplier from time to time at least eight weeks in advance for finalizing the shipping arrangement, through Fax/Telex and courier, to the Chief Controller of Chartering, Shipping Coordination Officer, Ministry of Surface Transport, Government of India, New Delhi. Within 3 (three) weeks of receipt of the advance notice, as above, the said Chief Controller of Chartering, Shipping Coordination Officer will advise the supplier, through Fax/Telex and courier when and on board what vessels, these goods or such part thereof are to be delivered. If the advice for shipping arrangement is not furnished to the Seller within 3 (three) weeks as aforesaid or if the vessel arranged is scheduled to arrive at the specified port of loading later than 15 (fifteen) days of the date of readiness of cargo, as aforesaid, the Seller may arrange for such transport on alternative carriers with the prior written consent of the Buyer. Where the Seller is required under the contract to deliver the goods on FOB/FAS basis and to arrange on behalf and at the expense of the Buyer for ocean transportation on Indian flag vessels or

vessels of conference lines in which India is a member country, the Seller may arrange for such transportation on alternate carriers if the specified Indian flag vessels or conference vessels are not available to transport the goods within the time period(s) specified in the contract, with the prior written consent of the Buyer. Should the goods or any part thereof be not delivered on the nominated vessel (except in case where prior written consent of the Buyer was obtained), the Seller will be liable for all payments and expenses that the Buyer may incur or be put to, by reason of such non-delivery including dead and extra freight, demurrage of vessels and any other charges, whatsoever incurred by the Buyer. The date of issue of the Bill of Lading shall be considered as the date of delivery. No part shipment of goods would be permitted. Trans-shipment of goods would not be permitted. In case it becomes inevitable to do so, the Seller shall not arrange part-shipments and/or transshipment without the express/prior written consent of the Buyer. The Seller may contact Shipping Officer, Ministry of Surface Transport, Chartering Wing, Transport Bhavan, Parliament Street, New Delhi-110011 (Telegraphic Address: TRANSCART, NEW DELHI-1, Telex "VAHAN" In 31-61157 OR 31-61158, Phone 2371 9480, Fax 2371 8614).

OR

(a). **FCA** - The delivery of the goods shall be FCA _____ Airport. The dispatch of goods shall be made by air to port consignee. The Buyer shall advise full details of its freight forwarder to the Seller no later than 60 days prior to the delivery of the first consignment otherwise the Seller may nominate . Any delay in advising or delay by the freight forwarder shall be at the responsibility of the Buyer. The date of issue of the Air Way Bill shall be considered as the date of delivery.

15 **Air lift.** The following Airlift clause will form part of the contract placed on successful Bidder - Should the Buyer intend to airlift all or some of the stores, the Seller shall pack the stores accordingly on receipt of an intimation to that effect from the Buyer. Such deliveries will be agreed upon well in advance and paid for as may be mutually agreed.

16. **Quality.** The quality of the stores delivered according to the present Contract shall correspond to the technical conditions and standards valid for the deliveries of the same stores for in Seller's country or specifications enumerated as per RFP and shall also include therein modification to the stores suggested by the Buyer. Such modifications will be mutually agreed to. The Seller confirms that the stores to be supplied under this Contract shall be new i.e. not manufactured before (Year of Contract), and shall incorporate all the latest improvements and modifications thereto and spares of improved and modified equipment are backward integrated and interchangeable with same equipment supplied by the Seller in the past if any. The Seller shall supply an interchangeability certificate along with the changed part numbers wherein it should be mentioned that item would provide as much life as the original item.

17. **Quality Assurance.** Seller would provide the Standard Acceptance Test Procedure (ATP) within one month of this date of contract. Buyer reserves the right to modify the ATP. Seller would be required to provide all test facilities at his premises for acceptance and inspection by Buyer. The details in this regard will be coordinated during the negotiation of the contract. The item should be of the latest manufacture, conforming to the current production standard and having 100% defined life at the time of delivery.

18. **Inspection Authority.** The Inspection will be carried out by board of officer. The mode of inspection will be User inspection.

19. **Franking clause.** The following Franking clause will form part of the contract placed on successful Bidder:-

(a) **Franking Clause in the case of Acceptance of Goods** “The fact that the goods have been inspected after the delivery period and passed by the Inspecting Officer will not have the effect of keeping the contract alive. The goods are being passed without prejudice to the rights of the Buyer under the terms and conditions of the contract”.

(b) **Franking Clause in the case of Rejection of Goods** “The fact that the goods have been inspected after the delivery period and rejected by the Inspecting Officer will not bind the Buyer in any manner. The goods are being rejected without prejudice to the rights of the Buyer under the terms and conditions of the contract.”

20. **Warranty.**

(a) The following Warranty will form part of the contract placed on successful Bidder : -

(i) The Seller warrants that the goods supplied under the contract Conform to technical specifications prescribed and shall perform according to the said technical specifications.

(ii) The Seller warrants for a period of THIRTY SIX months from the date of acceptance of stores by the board of officers or date of installation and commissioning, whichever is later, that the goods / stores supplied under the contract and each component used in the manufacture thereof shall be free from all types of defects/failures.

(iii) If within the period of warranty, the goods are reported by the Buyer to have failed to perform as per the specifications, the Seller shall either replace or rectify the same free of charge, within a maximum period of 45 days of notification of such defect received by the Seller, provided that the goods are used and maintained by the Buyer as per instructions contained in the Operating Manual. Warranty of the equipment would be extended by such duration of downtime. Record of the down time would be maintained by the user in the logbook. Spares required for warranty repairs shall be provided free of cost by the Seller. The Seller also undertakes to diagnose, test, adjust, calibrate and repair/replace the goods/equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the Buyer and the Seller.

(iv) The Seller also warrants that necessary service and repair back up during the warranty period of the equipment shall be provided by the Seller and he will ensure that the downtime is within 01% of the warranty period.

(v) The Seller shall associate technical personnel of the Maintenance agency and Quality Assurance Agency of the Buyer during warranty repair and shall also provide the details of complete defects, reasons and remedial actions for defects.

(vi) If a particular equipment/goods fails frequently and/or, the cumulative down time exceeds 01% of the warranty period, the complete equipment shall be replaced free of cost by the Seller within a stipulated period of TEN days of receipt of the notification from the Buyer. Warranty of the replaced equipment would start from the date of acceptance after Joint Receipt Inspection by the Buyer/date of installation and commissioning.

(vii) In case the complete delivery of Engineering Support Package is delayed beyond the period stipulated in this contract, the Seller undertakes that the warranty period for the goods/stores shall be extended to that extent.

(viii) The Seller will guarantee the shelf life of (One) year under the Indian tropical condition as given below :-

- | | | | |
|------|---------------------|---|-------|
| (aa) | Minimum temperature | - | 0 °C |
| (ab) | Maximum temperature | - | 60 °C |
| (ac) | Average Humidity | - | 80% |

21 **Product Support.** The following Product Support clause will form part of the contract placed on successful Bidder –

(a) The Seller agrees to provide Product Support for the stores, assemblies/subassemblies, fitment items and consumables, Special Maintenance Tools(SMT)/Special Test Equipments (STE) subcontracted from other agencies/ manufacturer by the Seller for a maximum period of Ten years including Three years of warranty period after the delivery of _____ (name of equipment).

(b) The Seller agrees to undertake Maintenance Contract for a maximum period of **Thirty Six** months, extendable till the complete Engineering Support Package is provided by the Seller.

(c) In the event of any obsolescence during the above mentioned period of product support in respect of any component or sub-system, mutual consultation between the Seller and Buyer will be undertaken to arrive at an acceptable solution including additional cost, if any.

(d) Any improvement/modification/ up gradation being undertaken by the Seller or their sub suppliers on the stores/equipment being purchased under the contract will be communicated by the Seller to the Buyer and, if required by the Buyer, these will be carried out by the Seller at Buyer's cost.

(e) The Seller agrees to provide an Engineering Support Package as modified after confirmatory Maintenance Evaluation Trials(METs). The SELLER agrees to undertake the repair and maintenance of the equipment, SMTs/STEs test set up, assemblies/sub assemblies and stores supplied under this contract for a period of **three years** as maintenance contract as specified or provision of complete Engineering Support Package to the Buyer whichever is later, as per terms and conditions mutually agreed between the Seller and the Buyer.

22. **Annual Maintenance Contract (AMC) Clause.** The following AMC clause will form part of the contract placed on successful Bidder :-

(a) The Seller should be capable to provide comprehensive AMC for a period of Seven years from the end of warranty period. The AMC services should cover the repair and maintenance of all the equipment and systems purchased under the present Contract. The Buyer Furnished Equipment which is not covered under the purview of the AMC should be separately listed by the Seller. The AMC services would be provided in two distinct ways:-

(i) **Preventive Maintenance Service.** The Seller will provide a minimum of four Preventive Maintenance Service visits during a year to the operating base to carry out functional check ups and minor adjustments/ tuning as may be required.

(ii) **Breakdown maintenance Service.** In case of any breakdown of the equipment/system, on receiving a call from the Buyer, the Seller is to provide maintenance service to make the equipment/system serviceable.

(b) Response time: The response time of the Seller should not exceed four hours from the time the breakdown intimation is provided by the Buyer.

(c) Serviceability of 99.9 % per year is to be ensured. This amounts to total maximum downtime of 8.76 HOURS per year. Also unavailability should not exceed Eight hours at one time. Required spares to attain this serviceability may be stored at site by the Seller at his own cost. Total down time would be calculated at the end of the year. If downtime exceeds permitted downtime, LD would be applicable for the delayed period.

(d) Maximum repair turnaround time for equipment/system would be one day. However, the spares should be maintained in a serviceable condition to avoid complete breakdown of the equipment/system.

(e) **Technical Documentation:** All necessary changes in the documentation (Technical and Operators manual) for changes carried out on hardware and software of the equipment will be provided.

(f) During the AMC period, the Seller shall carry out all necessary servicing/repairs to the equipment/system under AMC at the current location of the equipment/system. Prior permission of the Buyer would be required in case certain components /sub systems are to be shifted out of location. On such occasions, before taking over the goods or components, the Seller will give suitable bank guarantee to the Buyer to cover the estimated current value of item being taken.

(g) The Buyer reserves its right to terminate the maintenance contract at any time without assigning any reason after giving a notice of one month. The Seller will not be entitled to claim any compensation against such termination. However, while terminating the contract, if any payment is due to the Seller for maintenance services already performed in terms of the contract, the same would be paid to it as per the contract terms.

PART V – EVALUATION CRITERIA & PRICE BID ISSUES

1. **Evaluation Criteria** - The broad guidelines for evaluation of Bids will be as follows:-
 - (a) Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially.
 - (b) The technical Bids forwarded by the Bidders will be evaluated by the Buyer with reference to the technical characteristics of the equipment as mentioned in the RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.
 - (c) The Lowest Bid will be decided upon the lowest price quoted by the particular Bidder as per the Price Format given below : -
 - (i) In cases where only indigenous Bidders are competing, all taxes and duties (including those for which exemption certificates are issued) quoted by the Bidders will be considered. The ultimate cost to the Buyer would be the deciding factor for ranking of Bids.
 - (ii) In cases where both foreign and indigenous Bidders are competing, following criteria would be followed : -
 - (aa) In case of foreign Bidders, the basic cost (CIF) quoted by them would be the basis for the purpose of comparison of various tenders.
 - (ab) In case of indigenous Bidders, excise duty on fully formed equipment would be offloaded.
 - (ac) Sales tax and other local levies, i.e. octroi, entry tax etc would be ignored in case of indigenous Bidders.
 - (d) The Bidders are required to spell out the rates of Customs duty, Excise duty, VAT, Service Tax, etc in unambiguous terms; otherwise their offers will be loaded with the maximum rates of duties and taxes for the purpose of comparison of prices. If reimbursement of Customs duty / Excise Duty / VAT is intended as extra, over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of such duties will be entailed after the opening of tenders. If a Bidder chooses to quote a price inclusive of any duty and does not confirm inclusive of such duty so included is firm and final, he should clearly indicate the rate of such duty and quantum of excise duty included in the price. Failure to do so may result in ignoring of such offers summarily. If a Bidder is exempted from payment of Customs duty / Excise Duty / VAT duty upto any value of supplies from them, they should clearly state that no excise duty will be charged by them up to the limit of exemption which they may have. If any concession is available in regard to rate/quantum of Customs duty / Excise Duty / VAT, it should be brought out clearly. Stipulations like, excise duty was presently not applicable but the same will

be charged if it becomes leviable later on, will not be accepted unless in such cases it is clearly stated by a Bidder that excise duty will not be charged by him even if the same becomes applicable later on. In respect of the Bidders who fail to comply with this requirement, their quoted prices shall be loaded with the quantum of excise duty which is normally applicable on the item in question for the purpose of comparing their prices with other Bidders. The same logic applies to Customs duty and VAT also.

(e) In import cases, all the foreign quotes will be brought to a common denomination in Indian Rupees by adopting the exchange rate as BC Selling rate of the State Bank of India on the date of the opening of Price Bids.

(f) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.

(g) The Lowest Acceptable Bid will be considered further for placement of contract / Supply Order after complete clarification and price negotiations as decided by the Buyer. The Buyer will have the right to award contracts to different Bidders for being lowest in particular items. The Buyer also reserves the right to do Apportionment of Quantity, if it is convinced that Lowest Bidder is not in a position to supply full quantity in stipulated time.

(h) Any other criteria as applicable to suit a particular case.

2. **Price Bid Format.** The Price Bid Format is given below and Bidders are required to fill this up correctly with full details:-

(a)

S.No	Description of the items	Qty	Unit Rate	Amount Rs.
1.0	At Main Site Designing, Supplying, installation, testing & commissioning of IP Telephony system in 1:1 redundancy mode for the asked system scalability & as per other guidelines mentioned in the specifications with licenses for 500 Users	01 set		
(b)	RLU-one RLU Location with required Modems & PoE LAN Switch for 24 Phones(ip/analog) as mentioned in the specs.	01 Set		
2.0	Voice gateway with the following :- ? 5 PRI ? 600 DSP resources for	01 Set		

	G.729 ? 10 analog ports & 10 telephones			
3.0 (a)	IP Phones with Power adaptors	340		
4.0	(i) Soft Phone-Software based clients as per the specs (ii) Video capability in the soft Phone client with web cam (iii) USB Handsets with built in dial pad	150 150 150		
5.0	Communicator Clients Web based as per the specs	500		
6.0	Mobile based telephony client-as per the specs supported by list of phone models provided	500		
7.0	Digital attendant console with headset & Mic	1		
8.0	Call centre Solution with reporting agents	100		
9.0	Audio Conferencing Bridge	30 ports		
10.0	Web Conferencing Bridge	30 ports		
11.0	Unified Voice mail system for Voice & Fax capability with required Hardware & Software	500 users & 30 ports		
12.0	Call billing software with required Hardware	1		
13.0	Auto Attendant as per the specs (separate from Voice mail)	1		
14.0	Hardware based Video Conferencing MCU as per the specifications for minimum 10 ports	1		
15.0	Online UPS 1+1 minimum 10 KVA with batteries to provide 8 Hours backup.	1		
16.0	Modem / Converter Pairs Ethernet to Cu for range of 10 Km	5		
17.0	Layer 2 managed Ethernet Switch with 24 ports	50		
18.0	Cat 6 cable 300 mtr each roll	70 rolls		

19.0	PVC casing for concealing cabling	15000 mtr		
20.0	ACs 2 ton Split	4		
21.0	Vendor specific installation material as required by vendor to complete installation and commissioning to incl connectors RJ 11, RJ 45, sockets with wiring laid as per standards.	1 set		
22.0	Three yr comprehensive onsite warranty			
Total amount (in Rupees)				

- (b) Accessories
- (c) Installation / Commissioning charges
- (d) Training
- (e) Technical literature
- (f) Tools
- (g) AMC with spares
- (h) AMC without spares
- (j) Any other item
- (k) Is Excise Duty extra?
- (l) If yes, mention the following –
 - (i) Total value of items on which Excise Duty is leviable:
 - (ii) Rate of Excise duty (item-wise if different ED is applicable):
 - (iii) Surcharge on Excise duty, if applicable?
 - (iv) Total value of excise duty payable:
 - (v) Is Excise Duty Exemption (EDE) required:
 - (vi) If yes, then mention and enclose the following:
 - (vii) Excise notification number under which EDE can be given:
 - (viii) Is VAT extra?

- (ix) Total value on which VAT is leviable:
- (x) Rate of VAT:
- (xi) Total value of VAT leviable:
- (xii) Is Service Tax extra?
- (xiii) If yes, then mention the following:
- (xiv) Total value of Services on which Service Tax is leviable:
- (xv) Rate of Service Tax leviable:
- (xvi) Total value of Service Tax leviable:
- (xvii) Is Custom Duty Exemption (CDE) required:
- (xviii) If yes, then mention the following:
 - (a) Custom notification number under which CDE can be given(Enclose a copy):
 - (b) CIF value of stores to be imported:
 - (c) Rate of Customs Duty payable:
 - (d) Total amount of Customs Duty payable:
- (xix) Octroi / Entry taxes:
- (xx) Any other Taxes / Duties / Overheads / Other costs:
- (xxi) Grand Total:
 - (a) Excluding AMC and spares
 - (b) Including AMC with spares
 - (c) Including AMC without spares

ARBITRATION CLAUSE

1. All disputes or differences arising out of or in connection with the present contract including the one connected with the validity of the present contract or any part thereof, should be settled by bilateral discussions.
2. Any dispute, disagreement of question arising out of or relating to this contract or relating to construction or performance (except as to any matter the decision or determination whereof is provided for by these conditions), which cannot be settled amicably, shall within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, will be referred to a sole Arbitrator.
3. Within sixty (60) days of the receipt of the said notice, an arbitrator shall be nominated in writing by the authority agreed upon by the parties.
4. The sole Arbitrator shall have its seat in New Delhi or such other place in India as may be mutually agreed to between the parties.
5. The arbitration proceedings shall be conducted under the Indian Arbitration and Conciliation Act, 1996 and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only.
6. Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses shall be shared equally by the parties, unless otherwise awarded by the sole arbitrator.
7. The parties shall continue to perform their respective obligations under this contract during the pendency of the arbitration proceedings except in so far as such obligations are the subject matter of the said arbitration proceedings.

(Note - In the event of the parties deciding to refer the dispute/s for adjudication to an Arbitral Tribunal then one arbitrator each will be appointed by each party and the case will be referred to the Indian Council of Arbitration (ICADR) for nomination of the third arbitrator. The fees of the arbitrator appointed by the parties shall be borne by each party and the fees of the third arbitrator, if appointed, shall be equally shared by the buyer and seller).

Performance Bank Guarantee Format

From:
Bank _____

To,
The President of India
Ministry of Defence,
Government of India
New Delhi

Dear Sir,

Whereas you have entered into a contract No. _____ dated _____ (hereinafter referred to as the said Contract) with M/s _____, hereinafter referred to as the "seller" for supply of goods as per Part-II of the said contract to the said seller and whereas the Seller has undertaken to produce a bank guarantee for (%) of total Contract value amounting to _____ to secure its obligations to the President of India. We the _____ bank hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of the seller that, in the event that the President of India declares to us that the goods have not been supplied according to the Contractual obligations under the aforementioned contract, we will pay you, on demand and without demur, all and any sum up to a maximum of _____ Rupees _____ only. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. We undertake to effect payment upon receipt of such written demand.

2. We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between you and the Seller, indulgence to the Seller by you, or by any alterations in the obligations of the Seller or by any forbearance whether as to payment, time performance or otherwise.

3. In no case shall the amount of this guarantee be increased.

4. This guarantee shall remain valid for months from the date of JRI acceptance of test consignment in India or until all the store, spares and documentation have been supplied according to the contractual obligations under the said contract.

5. Unless a demand or claim under this guarantee is made on us in writing or on before the aforesaid expiry date as provided in the above referred contract or unless this guarantee is extended by us, all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder.

6. This guarantee shall be a continuing guarantee and shall not be discharged by and change in the constitution of the Bank or in the constitution of M/s
.....

Appendix 'B'**Performance Bank Guarantee Format****From:****Bank** _____

To,

The President of India

Ministry of Defence,

Government of India

New Delhi

Dear Sir,

Whereas you have entered into a contract No. _____ dated _____

(hereinafter referred to as the said Contract) with

M/s _____, hereinafter referred to as the "seller" for supply of

goods as per Part-II of the said contract to the said seller and whereas the Seller has undertaken to produce a bank guarantee for (%) of total Contract value amounting to

_____ to secure its obligations to the President of India. We the _____

bank hereby expressly, irrevocably and unreservedly undertake and guarantee as principal

obligors on behalf of the seller that, in the event that the President of India declares to us that

the goods have not been supplied according to the Contractual obligations under the

aforementioned contract, we will pay you, on demand and without demur, all and any sum up

to a maximum of _____ Rupees _____ only. Your written demand shall be

conclusive evidence to us that such repayment is due under the terms of the said contract.

We undertake to effect payment upon receipt of such written demand.

2. We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between you and the Seller, indulgence to the Seller by you, or by any alterations in the obligations of the Seller or by any forbearance whether as to payment, time performance or otherwise.

3. In no case shall the amount of this guarantee be increased.

4. This guarantee shall remain valid for months from the date of JRI acceptance of test consignment in India or until all the store, spares and documentation have been supplied according to the contractual obligations under the said contract.

5. Unless a demand or claim under this guarantee is made on us in writing or on before the aforesaid expiry date as provided in the above referred contract or unless this guarantee is extended by us, all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder.

6. This guarantee shall be a continuing guarantee and shall not be discharged by and change in the constitution of the Bank or in the constitution of M/s _____.

MODEL ECS MANDATE FORMAT

Customer's option to receive payments through e-Payment (ECS/ EFT/ DIRECT CREDIT/ RTGS/ NEFT/ Other payment mechanism as approved by RBI.)

Credit Clearing Mechanism

S No	Details Required	Distribution
1.	Customer's name	
2.	Particulars of Bank Account	
3.	Bank name	
4.	Branch name	
5.	Address	
6.	Telephone numbers	
7.	IFS code	
8.	Digit code number of Bank and Branch appearing on MICR cheque issued by Bank	
9.	Account Type (S.B. Account / Current Account or Cash)	
10.	Ledger number	
11.	Ledger Folio number	
12.	Account number as appearing on Cheque Book	

2. Please attach a blank cancelled cheque, or, photocopy of a cheque or front page of your savings bank passbook issued by your bank for verification of the above particulars.

3. **Date of Effect**

"I, hereby, declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under scheme."

(.....)

Date -

Signature of Customer

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp: (.....)

Date:

Signature of the Authorized Official from the Bank

QUALITY CLAIM

Quality Claim to the Contract Nodated

Claim Protocol number Laid down on

Concerning (Name of the claimed equipment)

Commission Members

Chairman
.....

The Commission has acquainted with the claimed equipment and made the following decision : -

1. Serial No
.....(equipment) Production by the Made
by the manufacturer
(date of manufacture)

No of running hours With guarantee period of
(completed)

.....(years, months) From the beginning of operation,
the product has been operating for hours.

2. Indicate operation conditions of the equipment
.....
(State type of fuel and oil used during operation of the equipment)

3. Description of the defect
.....
(the date and circumstances under which the defect was ascertained, short description of
the probable causes and probable consequences of the defect)

4. List of units (or their parts) (defective equipment will remain in that organization store-room
when it has been operating till arrival of the Seller's instruction)

5. Conclusion of the Commission
.....
.....

(on investigation the commission decided that the claimed equipment is not serviceable and that it must be subject to repair or must be replaced with a new equipment. The kind of repair and place where the repair should be carried out are to be stated).

The following parts are required for the repair of the equipment (or its parts)

.....
.....

The defect occurred within the guarantee period from the reason

.....
.....
.....

The costs of the repair of the equipment or its parts

.....
.....
.....

The defect occurred within the guarantee period from the reason as follows

.....
.....
..... The cost of the

repair will be debited to (..... manufacturer/owner.....) To settle the claim, the Seller has to replace the equipment and dispatch the unit and other parts, indicate the parts and where the repair should be carried out (manufacturer's side), the manner of reimbursement of costs connected with the repair of the equipment, etc. Supplementary data:

The equipment was handed over in accordance with the

No on (date)

.....

The following documents are enclosed to this claim protocol to support the justification of the claim (photos, samples, results of analysis, packing sheets, etc.)

Signature of the commission members

.....
.....

QUANTITY CLAIM FORMAT

Quantity Claim to the Contract Nodated
.....Claim Protocol number
Laid downfor
inter/tare storage Commission, consisting of Chairmanand Members the state
.....having examined of the delivered
equipment ascertained as follows:-

1. The equipment was delivered by M/s against Bill of Lading
No of in the quantity of one collie
with the Marking Case No.....

2. The obtained equipment is delivered under Contract number.....
Item Sr Number Cost.....

3. The state of packing and seals on goods packages, correspondence of the gross
weight and the weight indicated in the way bills (packing lists) Nos of the collies are to be
pointed out Condition of the collie
..... Gross weight of the collie
Net weight of the collie

4. While unpacking the goods packages, the following discrepancy between the shipping
shipping documents (packing lists as the packed equipment was discovered/separately for
the each package
.....
.....

5. Conclusion of the commission
.....
.....

6. The following documents confirming the justification of the complaint are attached to
the report (Packing list, photos of the damaged sports and others)
.....
.....

Chairman

Members

Place and date of issue

NATIONAL DEFENCE ACADEMY (NDA)
KHADAKWASLA, PUNE – 411 023

TENDER NOTICE

Commandant, National Defence Academy , PO NDA Khadakwasla, Pune 411 023 invites separate sealed tender for following as per under mentioned details:-

Name of the Project	<u>INSTALLATION OF NEW INTERCOM EXCHANGE AT NATIONAL DEFENCE ACADEMY</u>
Estimated Cost of the Project	Rs 100 Lakhs (approximately)
Completion Period	06 weeks
Amount of Earnest Money Deposit	5% of the total cost of the project
Cost of Tender	Rs 1000/-
Eligibility Criteria	(a) Firm should be ISO 9000 certified (b) Firm should have undertaken similar projects in Private/Government sectors.
Last date of issue of tender	05 days prior to last date of receipt of filled tender
Last date of receipt of filled Tender application	21 days form publishing of Tender upto 1500 hrs

Important Guidelines.

1. Tenderer must fulfill the conditions given above and submit documentary evidence/proof of the same at the time of collection of tender documents between 9 am to 1.30 pm on working days.
2. **Earnest Money.** Earnest Money as given above be deposited as Bank Demand Draft payable to Commandant, National Defence Academy, PO NDA, Khadakwasla, Pune-411 023, along with complete Tender documents in sealed envelope.
3. Commandant, NDA reserves the right to reject any or all applications without assigning any reason, at any stage.
4. **Tender Documents.** Can be downloaded from www.nda.nic.in or obtained in person (on an application) from the Officer-in-Charge MIS Cell, NDA Khadakwasla, Pune – 411023 on payment of Rs 1000/- (**Rupees One Thousand Only** (Rs 1000/- by DD in case required by Post) (Non- Refundable) per copy of the tender documents in cash or by demand draft payable to the Commandant, National Defence Academy, Khadakwasla on SBI, NDA Khadakwasla. In case the tender document is collected in person, the representative should bring documents as mentioned at Para 1 above along with authority letter duly signed by authorized signatory of firm. If the tender document is downloaded from internet, tender fees of Rs 1000/- is **required** to be paid in cash while submitting the tender.
5. In case of any query/to seek any clarification vendor may contact Officer-in- charge, MIS Cell, NDA on Telephone **Nos 020-2520 6880.**

FORMAT FOR BANK GUARANTEE FOR ADVANCE PAYMENT

From :

Bank _____

To
The President of India
Sir,

With reference to contract No. _____ dated _____ concluded between the President of India, hereinafter referred to as 'the Purchaser' and M/s _____ hereinafter referred to as the "the contractor" for the development and supply of _____ as detailed in the above contract which contract is hereinafter referred to as "the Said Contract" and in consideration of the Purchaser having agreed to make an advance payment in accordance with the terms of the Said Contract to the said contractor, we the _____ bank, hereinafter call 'the Bank' hereby irrevocably undertake and guarantee to you that if the Said Contractor would fail to develop and supply the stores in accordance with the terms of the Said Contract for any reason whatsoever or fail to perform the Said Contract in any respect or should whole or part of the said on account payments at any time become repayable to you for any reason whatsoever, we shall, on demand and without demur pay to you all and any sum upto a maximum of Rs. _____ (Rupees _____ only) paid as advance to the Said Contractor in accordance with the provisions contained in Clause _____ of the Said Contract.

2. We further agree that the Purchaser shall be the sole judge as to whether the contractor has failed to develop and deliver the stores in accordance with the terms of the Said Contract or has failed to perform the said contract in any respect or the whole or part of the advance payment made to Contractor has become repayable to the Purchaser and to the extent and monetary consequences thereof by the Purchaser.

3. We further hereby undertake to pay the amount due and payable under this Guarantee without any demur merely on a demand from the Purchaser stating the amount claimed. Any such demand made on the Bank shall be conclusive and binding upon us as regards the amounts due and payable by us under this Guarantee and without demur. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs _____ (Rupees _____ only).

4. We further agree that the Guarantee herein contained shall remain in full force and effect for a period of 12 months from the date the last advance payment was made or for a period of 90 days from the date on which final delivery of the stores after development was made and accepted by the Purchaser whichever falls later unless the Purchaser in his sole discretion discharges the Guarantee earlier.

5. We further agree that any change in the constitution of the Bank or the constitution of the contractor shall not discharge our liability hereunder.

6. We further agree that the Purchaser shall have the fullest liberty without affecting in any way our obligations hereunder with or without our consent or knowledge to vary any of the terms and conditions of the Said Contract or to extend the time of development/delivery from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the contractor and either to forbear or enforce any of the terms and conditions relating to the Said Contract and we shall not be relieved from our liability by reason of any such variation or any indulgence or for bearance shown or any act or omission on the Purchaser or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

7. We lastly undertake not to revoke the Guarantee during the currency of the above said contract except with the prior consent of the Purchaser in writing.

Yours faithfully,
for _____ Bank
(Authorised Attorney)

Place : _____
Date : _____
Seal of the Bank

