

**Consulate General of India  
San Francisco**

**NOTICE INVITING TENDER**

for

Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system  
and Telephone Instruments in the new office building at  
Consulate General of India, San Francisco – 71 Stevenson Street Suite 2200, San Francisco, CA

<b>Tender No: SANF/ESTT /862/05/2024</b>	
<b>Critical Dates:</b>	
<b>Date of Publishing</b>	<b>July.08.2024; 09:00 hrs</b>
<b>Bid Document Download Start Date</b>	<b>July.08.2024; 09:00 hrs</b>
<b>Clarification Start Date</b>	<b>July.15.2024; 09:00 hrs</b>
<b>Clarification End Date</b>	<b>July.18.2024; 17:00 hrs</b>
<b>Bid Submission Start Date</b>	<b>July.08.2024; 09:00 hrs</b>
<b>Bid Submission End Date</b>	<b>July.29.2024; 15:00 hrs</b>
<b>Date of Technical Bid Opening</b>	<b>July.30.2024: 11:00 hrs</b>
<b>Date of Financial Bid Opening</b>	<b>August.02.2024: 11:00 hrs</b>

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**Consulate General of India, San Francisco  
540 Arguello Blvd., San Francisco, CA 94118**

**Consulate General of India  
San Francisco**

**Tender No: SANF/ESTT/862/05/2024**

**Tender for Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments in the new office building at Consulate General of India, San Francisco – 71 Stevenson Street Suite 2200, San Francisco, CA**

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SANF/ESTT/862/05/2024  
Consulate General of India  
San Francisco

**SECTION –I**

**INVITATION FOR BIDS**

**Subject: Tender for Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments in the new office building at Consulate General of India, San Francisco – 71 Stevenson Street Suite 2200, San Francisco, CA**

Consulate General of India – San Francisco invites bids from established firms/company for Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments in the new office building at Consulate General of India, San Francisco – 71 Stevenson Street Suite 2200, San Francisco, CA 94105

2. Duly completed bid proposal in prescribed format as per Notice Inviting Tender must reach office of Head of Chancery (HOC); e-mail: hoc.sf@mea.gov.in on or before 1700 hrs on 29<sup>th</sup> July, 2024. The detailed tender document along with annexure can also be downloaded from Central Procurement Portal <https://eprocure.gov.in/eprocure/app> or the website of Consulate General of India, San Francisco <https://cgisf.gov.in>.

3. Prospective bidders shall deposit an amount equivalent to 5% of the quoted cost with the Consulate as Bid Security /Earnest Money Deposit (EMD). This can be deposited through a bank guarantee in favour of Consulate General of India – San Francisco' in a sealed envelope. The EMD received from unsuccessful bidders will be returned to them after finalization and award of contract. In case of successful bidder, the EMD will be retained as 'Performance Guarantee' till the job is satisfactorily completed. The 'Performance Guarantee' money shall be returned on successful completion of the firm's entire obligations under the contract.

4. The tender should be submitted in two sealed envelopes as below:

(a) The first sealed cover super-scripted as 'Technical Bid' should contain details of technical capabilities of the company/agency with documentary evidence as per Section -IV.

(b) The second sealed envelope super-scripted as 'Financial Bid' should contain Lump Sum price as per Section -V along with 5% of quoted cost as Earnest Money Deposit.

(c) Both the sealed covers should be placed in the main sealed envelope super-scripted 'Tender for Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments at the new building of the Consulate General of India – San Francisco' and must reach on or before 1500 hrs on 29<sup>th</sup> July, 2024 in the office of Head of Chancery (HOC), Consulate of India – San Francisco, 540 Arguello Blvd., San Francisco, CA 94118. All pages of the submission document must be signed by authorized signatory.

5. The important dates are as under:

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6. Selection process:

(a) Technical Bids will be opened on 30<sup>th</sup> July, 2024 at 1530 Hrs in the Consulate of India, San Francisco. Applicants may send their representative to be present during opening of bids after obtaining prior permission from the Consulate of India, San Francisco.

(b) The technical eligibility credentials of all the bidders shall be evaluated first. Failure to submit requisite documents will render the applicant ineligible.

(c) A list of technically qualified bidders shall be prepared. Technically qualified bidders shall be informed and shall be invited for opening of the financial bids at prescribed date and time by the Consulate of India, San Francisco.

7. The Performance Security/Performance Guarantee made out to the value of **Five Percent (5%)** of the Accepted Contract Amount in the form of Bank Guarantee shall be submitted as described in the conditions of contract. The Performance Security Bank Guarantee shall remain valid for period of 60 days beyond the execution and completion of the works as a Guarantee to secure the proper carrying out, the handling of the works and recovery of compensation of such other sums that may become due to the CGI from the bidder/supplier under the terms of the contract and shall not have been paid by him on demand.

8. In case the tender is not decided during the validity period of tender i.e. within **120 days** from the date of opening of the tender, the CGI may request the Bidders to extend the validity of tender for a further specified period beyond 120 days. Bidder(s) shall be at liberty to extend the validity of tender for the specified period of withdraw their tender. Once the validity is extended in writing by the Bidder(s), they will not be permitted to withdraw from tender.

9. The acceptance of the Tender shall be conditional and not finally binding upon the CGI until the Bank Guarantee and the Performance Bond have been duly provided and the actual contract signed between CGI and the successful tenderer. Should the bidder fail to sign the contract within the stipulated time or to provide the Bank Guarantee and the Performance Bond, within 15 days or for any other reason withdraw his/her participation in the Tender, the CGI may withdraw his/her acceptance of the Tender without any notice or other formality and may enter into a new Agreement for the execution of the works or any part of it. No payment shall be released to the

Bidder/Supplier unless the agreement is signed.

10. Method of Payment:

10.1 30% deposit payment of the total order value shall be released to the successful tenderer against bank / insurance guarantee upon awarding the project. 50% payment of the total order value shall be released against complete delivery of the goods at the site in good condition subject to the inspection by the CGI. 20% shall be released after the successful installation and Testing of the equipments at the site, to the complete satisfaction of the CGI which would be certified in writing by the CGI as the acceptance of the works. Retention money at the rates as specified in Clause 11 shall be deducted from these payments and shall be retained till the expiry of the defects notification period/warranty.

10.2 The Bidder's request(s) for payment shall be made to the CGI in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and upon fulfillment of other obligations stipulated in the contract.

11. Retention Money: An amount equivalent to 5% of the invoice/bill amount will be retained as Retention money till successful completion of the Contract. 50% of the Retention Money retained will be released after the success completion of the Contract and the balance 50% of the retention money will be released in completion of Defect Notification Period/Warranty Period of the item supplied. During the Defect Notification Period/Warranty Period if the Bidders fails to provide satisfactory service, this amount will be utilized for repairing the defective supplied item and as a consequence the supplier is liable to be blacklisted.

12. Payment modalities: The payment will be made within 30 days of satisfactory completion of the project. Mode of payment shall be electronic transfer to a bank account provided by the bidder for the purpose at the time of award of contract in US Dollar currency. Acceptance of any other mode of payment or payment in any other currency would be at the discretion of the Consulate.

13 All bidders are requested to read and understand the terms & conditions of the contract before submitting their bids. No change or violation of the terms and conditions mentioned in the tender document is permissible once the quotation/bid is accepted by the Consulate.

14. The Consulate of India, San Francisco reserves the right to cancel or amend the tender without assigning any reason whatsoever.

(Jaswant Singh)  
Head of Chancery  
Consulate General of India, San Francisco  
540 Arguello Blvd., San Francisco, CA 94118  
Email: hoc.sf@mea.gov.in

**SECTION-II**

**Terms and Conditions of Contract**

- (1) The acceptance of the tender shall be conditional and not finally binding upon the Consulate General of India, San Francisco. The Consulate may withdraw the acceptance of the tender without any notice or formality and may enter into a new Agreement for the execution of the services or any part of it.
- (2) At any time during the process of tendering, the Consulate General of India, San Francisco may issue an addendum in the tender document deleting, varying or extending any item of this tender document.
- (3) Disqualification of tender: Tender may be disqualified for any reason including but not limited to the following:
  - (a) If Tenderer sets forth any conditions which are unacceptable to the Consulate General of India, San Francisco.
  - (b) If there is evidence of collusion between bidders.
  - (c) If Tenderer involves any corrupt or unethical means to influence the tender process.
  - (d) If bid price is disclosed or become known before opening of Financial Bid.
- (4) The attention of bidders is drawn as to compliance with laws and regulations.
- (5) Bidders shall be deemed to have read carefully all the tender documents, specifications etc. The quoted fixed price should be inclusive of all cost and charges and complete in all respect as per the standard and to the entire satisfaction of the Consulate General of India, San Francisco. The bids shall be strictly as per the conditions of Consulate General of India, San Francisco. Bids with any additional condition(s)/modifications shall be rejected.
- (6) The bids received after the due date & time of submission shall not be entertained, and shall be returned to the Tenderer unopened.
- (7) The acceptance of bids will rest with the Consulate General of India, San Francisco, which does not bind to accept the lowest bid and reserves the right to reject any or all the bids received without assigning any reason thereof. Incomplete tenders not fulfilling the prescribed conditions are liable to be rejected.
- (8) The bid proposals, all related correspondence exchanged between the company /firm and the Consulate, shall be written in the English language.
- (9) Even though the applicant may satisfy the above requirements, he/she would be liable to disqualification, if he / she has made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures.
- (10) Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures

and standard accessories normally provided with such equipment and/or needed for erection, completion and safe operation of the equipment as required by applicable codes though they may not have been specifically detailed in the tender document, unless included in the list of exclusions. All similar standard components/parts of similar standard equipment provided, shall be interchangeable with one another. Patch cord should be branded and factory crimped.

(11) Warranty: Onsite warranty for all hardware delivered and installed for minimum one year and extended as per OEM Guarantee/Warranty period. The equipment must be warranted against all manufacturing/installation defects for at least a period of 12 months (please indicate guarantee/warranty period offered by you on the product in your quote) from the date of successful installation and acceptance. In case, a part thereof or the whole equipment is found defective the same will have to be rectified/replaced on free of charge basis without lapse of time.

(12) The Bidder shall be responsible for providing all materials, equipment and services, specified or otherwise, which are required to fulfill the intent of ensuring operability, maintainability and reliability of the complete equipment covered under the specification within his quoted price. The work shall be in compliance with all applicable standards, statutory regulations and safety requirements in force on the date of award of the contract.

(13) The bidder shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under his scope of work as per this specification. All required tools and tackles for completing the scope of work as per the specification is also the responsibility of the bidder.

(14) The installation of equipment shall be accepted only after installation tests are over.

(15) The bidder should ensure while installation/restructuring of LAN, day-to-day functioning of official work and existing network setup/connectivity/internet connectivity should not get disrupted.

(16) The bidders proposal shall include the list of tools (such as crimping tool, punch tool, etc.) and other accessories, which are required for project. No separate charges for fixing/ crimping/ other connection charges would be paid by the Consulate.

(17) The switches proposed by the bidders must be compatible to the existing network.

(18) The Consulate General of India, San Francisco will not be responsible to compensate for any expense or losses which might have been incurred by the Tenderer in the preparation and submission of his tender/bid.

(19) Fixed price tender: This is a fixed price tender with extent of work as indicated in scope of work.

(a) The bidder shall examine the scope of work and other documents and all addendum (if any) before submitting his tender/bid and shall become fully informed as to the extent, quality, type and character of operations involved in the works.

(b) The fixed price /amount must be quoted both in figures and in words on the 'Price Schedule' as per Section -V and the currency must be 'US Dollar' only.

(c) In case of any discrepancy between figures or words, the amount quoted in words shall be taken to be correct for this tender.

(20) The bid shall remain valid for a period of 180 days from the date of the opening of the bid or up to any mutually extended period.

(21) Decision on bid will be taken based on the final price quoted in the 'Price Schedule' as per Section -V. Lump-sum fixed price/amount as quoted in the 'price schedule' shall be the basis for deciding the tender quote and the lowest bidder.

(22) Payments: The payment will be made within 30 days of satisfactory completion of the project.

(23) Consulate reserves the right for quantity variation due to increase/decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification.

(24) Permit: The Tenderer should have valid permit/registration from a competent local authority for providing their services in San Francisco California for the diplomatic property. The bidder should be member of the union contractor of the City of San Francisco.

(25) Notwithstanding the provisions of contract, the Contractor shall not be liable for forfeiture of its performance security, or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

For purpose of this clause, "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault of negligence and not foreseeable. Such events may include but are not restricted to acts of the Mission either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Contractor shall promptly notify the authority in writing of such conditions and the cause thereof. Unless otherwise directed by the Ministry in writing the Contractor shall continue to perform its obligations under the Agreement as far as is reasonably practical and shall seek all reasonable alternative means not prevented by the Force Majeure event.

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**SECTION-III**

**Scope of Work**

**I. Local Area Network (LAN) (cable for Data & Voice)**

Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments with latest network equipment/ components are required in Consulate's new office building located at 71 Stevenson Street, San Francisco, CA.

Establishment of Local Area Network and IPBX system of centralized nature with latest component is required to be installed in the server room. The Consulate will be using 5 new dedicated internet lines distributed across the two floors of the office as given below:

Sl. No.	Item	Qty*	Remarks
1.	Consular Dedicated	75	Internet bandwidth for this dedicated network is 400 Mbps and may be extended upto 1 Gbps. Specification should be decided considering the bandwidth, part-I setup requirement and other factors essential for deciding the specification such as technical requirements/specifications for Switches & Routers.
2.	Chancery Dedicated	75	Internet bandwidth for this dedicated network is 400 Mbps and may be extended upto 1 Gbps. Specification should be decided considering the bandwidth, part-I setup requirement and other factors essential for deciding the specification such as technical requirements/specifications for Switches & Routers.
3.	PABX Dedicated	75	Internet bandwidth for this dedicated network is 400 Mbps and may be extended upto 1 Gbps. Specification should be decided considering the bandwidth, part-I setup requirement and other factors essential for deciding the specification such as technical requirements/specifications for Switches & Routers.
4.	Dedicated 'A'	2	Internet bandwidth for this dedicated network is 400 Mbps and may be extended upto 1 Gbps. Specification should be decided considering the bandwidth, part-I setup requirement and other factors essential for deciding the specification such as technical requirements/specifications for Switches & Routers.
5.	Dedicated 'B'	4	Internet bandwidth for this dedicated network is 400 Mbps and may be extended upto 1 Gbps. Specification should be decided considering the bandwidth, part-I setup requirement and other factors essential for deciding the specification such as technical requirements/specifications for Switches & Routers.

## **Part I: Laying & fixing of Cables and installation of associated Passive Components**

- (a) Laying and labeling of new LAN cables (Cat6 UTP Cable) on walls through PVC Conduit/channels, Casing including all materials.
- (b) Installation of rack at a designated place and termination of all cables on patch panel.
- (c) UPS (Uninterrupted Power Supply) Power battery backup minimum of 02 hours will be giving power backup after electric power failure and stabilizer as per capacity of the system.
- (d) Checking and testing of all cables
- (e) Creation of network diagram on paper as well as CD /DVD

## **Part II: Supply, installation and Configuration of Routers, Switches and other Active Components**

- (a) Supply, installation and configuration of Active Components (Routers, Switches etc at the appropriate location at each floor of the building and in the server room to ensure inter-operability of whole Internet LAN setup.
- (b) Along with each Access Switch, a Patch Panel setup and Rack should be installed based on number of ports in switch, its size and other essential factors needed to execute the smooth operation.
- (c) All the Switches, Routers should be of the same Manufacturer/OEM. Beside the given number of ports and their bandwidth capability, these devices should be supplied keeping in mind the other factors essential for its integration with the setup proposed in part-I.

**Note:** The scope of work shall also include:

- a) Locations of Server Room, Routers, Access Switches, number of LAN Points/nodes & their locations or passage of LAN cables on walls or additional information on devices or any other query will be explained during site visit only. The bidders are encouraged to visit site to get the idea on the whole project in terms of its technical requirements, way of setup, operation, cable laying & fixing and other parameters.
- b) Powering on equipment after ensuring correctness of terminations interfaces and power supply and making the system ready for testing and commissioning.
- c) Testing of LAN cables after restructuring, terminations and ferruling at both the ends. All testing tools and instruments shall be brought by the bidder and taken back after the testing.
- d) Assistance for familiarization and operation of the installed system & service for 06 months after acceptance of system.
- e) Onsite warranty for all installation and hardware delivered for minimum one year and extended as per OEM guarantee/warranty offered. e) Any other work/equipment/material required for making the network well structured and functional up to the satisfaction of the Consulate.
- f) Design/development of the required architecture/layout of the proposed networking system, preparation of bill of materials, per-dispatch inspection/testing, packing , forwarding, transportation, insurance and carrying out further activities at sites viz. unloading, storage (space to be provided by the owner), further handling, erection, testing and commissioning including

successful completion/operation of acceptance tests and any other service specified.

g) Powering on equipment after ensuring correctness of terminations, interfaces, power supply and making system ready for testing and commissioning. Further, testing of LAN cables after laying, terminations and punching at both ends. All testing tools and instruments shall be brought by the vendor and taken back after testing. Cabling work needs to be certified by the vendor.

h) Equipment furnished should be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment's and/or needed for erection, completion and safe operation of the equipment's as required by applicable code though they may not have been specifically detailed in the technical specification, unless included in the list of exclusions. All similar standard components/parts of similar standard equipment's provided, shall be inter-changeable with one another.

i) The methodology of cabling to be adopted at the site of networking has to ensure minimum damage to the existing finish and no loss to the aesthetic beauty of the buildings. Any damage to the existing flooring/walls/paint etc shall be made good by the vendor. It is advised that vendor should visit site before submitting the tender to get apprised about the site conditions and other exceptions to be explained during visit.

j) The vendor shall furnish two complete sets of system and equipment instruction manuals and detailed installation operating and maintenance documentation along with the CDs for the same. Manuals shall describe system operation, shall include detailed system and components description and shall cover the installation, operation, care and maintenance of all system components including diagnostics. Complete parts lists including detailed instructions for ordering shall be furnished. Complete documentation for operating, system software, application programs, software functions shall be provided. After installation, the drawings shall be provided by the vendor indicating the cable routes, termination & termination details, actual configuration & parameters etc. Labelling/Identifications of Cables, I/Os, Jack Panel, Switches etc for the whole setup should be done and sketch/layout documentations of the Network should be provided in hard copy and CD.

k) The exact siting of equipment's and cable routing shall be determined by the Consulate. The vendor shall prepare proposed cable routing diagram and other installation accordingly.

l) The Vendor shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under scope of work as per the specifications.

m) The vendor shall furnish complete, well-fabricated and reliably operating and secure systems as described in this document. Design and selection of equipment and software shall be consistent with the requirements of long term trouble free operations with highest degree of reliability and maintainability. All equipment shall be constructed to operate safely without undue heating, vibration, noise, wear, corrosion, electromagnetic interference or similar problems and all software shall be proven, tested and reliable.

n) All interconnecting cables required to connect the communication equipments shall be furnished. All cables shall be fully assembled, connector pre-terminated and factory tested as part of overall system checkout. Cables shall be neatly & properly tied up and dressed using appropriate cable hangers and Velcro bands. There should not be any hanging or un-covered wire.

o) All the equipment, accessories and cables supplied under this contract shall be in accordance with the latest applicable recommendations, regulations of International standards like EIA/TIA,

IEEE, UL listed (for OFC and Cat6 cables) and other similar international standards for such equipment.

p) The equipment to be supplied shall operate without any deviation in quality or degradation of system performance and all the parameters detailed in these specifications shall be guaranteed to perform over the existing climate, temperature, humidity and other environmental factors.

q) Reliable over/under voltage and over/under current protection circuits shall be provided in the equipment power supply units which shall be self protecting and also protect connected equipment's against interference, noise, voltage drops/surges/impulses that may be present in the mains power supply sources.

r) Country of origin of Components should preferably be India, Russia, USA, EU, Japan and other reliable manufacturers.

#### Warranty Terms:

➤ the bidder warrants that the Goods supplied under the contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The Warranty for Switches & Routers shall remain for the period as specified by the OEM (Refer Part-II requirements of Switch & Routers). The warranty for the remaining active or passive components (except Switch & router) to supplied under this contract shall remain valid for a period of a minimum of three years from the date of issue of "Acceptance Certificate of Commissioning of the components".

➤ any request related to hardware issue in components should be addressed promptly and resolved within 48 hours of submission of complaint.

## **II. IPBX system and Telephone Instruments**

Installation of new IPBX system and Telephone Instruments with latest network equipment/ components are required in Consulate's new office building located at 71 Stevenson Street, San Francisco, CA.

Establishment of IPBX system of centralized nature with latest component is required to be installed in the server room.

- a) Supply, installation, testing & commissioning of the new IP PBX System as specified in the detailed system specification below.
- b) The firm, with prior permission of this office, may inspect the site for preparing the plan and layout.
- c) Monitor performance of the new IP PBX System for three months and provide the necessary training to the operators and staff of CGI, San Francisco.
- d) The plan showing the area required for new telephone exchange battery setup, battery charging unit, operator console with the dimensional details should be submitted along with the quotations.
- e) The voice in telephone instruments should be clear without any disturbance.
- f) The firm should supply the operation and maintenance manual, electric /electronic circuit diagrams, battery and battery charger information in two sets along with the IP PBX System.
- g) The firm should maintain the IP PBX and accessories ordered herewith in full working
- h) Condition during the warranty period of three year and should repair / replace the parts free of charge during this period.
- i) The firm shall confirm in their offer that the spare parts for IP PBX System will be available for 5 years for direct replacement, if ordered by Consulate General of India - San Francisco.
- j) The firm must quote the rate for supply of standard analogue, digital and IP telephone instruments. Actual number of each type of phone instruments if any to be supplied will be placed in the purchase order.
- k) Supply of any other hardware / accessories needed for installation of the ISDN/IP PBX system will be quoted for with details. All wirings and interconnections shall be done in a professional way and shall be of standard quality.

## DETAILED SPECIFICATION FOR IP PBX SYSTEMS

### 1. GENERAL:

Under the scope of this project Consulate General of India - San Francisco intends to procure an IP PBX system with 60 extension lines expandable to 75. The proposed systems shall be a fully smart system that supports Time Multiplexing (TDM), employ Stored Program Control (SPC) using Pulse Code Modulation (PCM), IP switching and conforming to latest ITU-T (earlier CCITT) standards. The IP PBX should be able to integrate with public telecom network infrastructure (PSTN/ISDN). The system shall be fully modular and fully non-blocking type with distributed architecture and should have provisions for redundancy for main system controls. The other specific features as listed below shall be satisfied.

- a. It should have facility to connect Computer Terminal, Telephones and FAX through suitable Interface common to all such devices. Tenderers shall indicate full details of the system offered including CPU speed.
- b. The system shall be capable of working in a suitably ventilated non-air-conditioned environment. System design shall be immune to noise from various sources like power supplies, lighting system etc.
- c. The System shall ensure a very high degree of availability and maintainability through use of highly reliable components and appropriate structural & functional units.
- d. All components should be rated for continuous operation of the system. It should be designed in such a way that any damage in any circuit/Subassembly /assembly should be self- containing and should not be spread to other parts of the system.
- e. Fuses used shall have a suitable marking for the different rating to enable easy identification and replacement.
- f. Flexibility of opening & closing of limits & modification in class of service will be provided.
- g. There must be protection of IP PBX System from high voltage/current transient occurring on junction lines to the Exchange.
- h. Connecting cables between jacks shall be marked in their extremities with identical designation as on the fixed connecting flanges.
- i. Cabinet design shall provide for adequate ventilation to dissipate heat due to energy loss.
- j. The points for connecting supplies, the power supply to the different plug-in cards shall be standardized & mechanically non-interchangeable to prevent damage due to accidental interchange of connectors.
- k. Sub-assemblies & printed cards in the equipment shall be suitably marked. Identification of a type of card in its connector shall be possible without necessitating its removal. Any plug-in component shall be marked with sufficient information for its complete identification.
- l. All instructions labels or any other marking on the equipment shall be perfectly legible.

## **2. POWER SUPPLY:**

- a. The IP PBX shall be suitable for operation as per USA electrical standards.
- b. Power back up for 110V systems can also be provided by external UPS.
- c. The derived power supply shall be suitably protected on the input side against over current and accidental reversal of polarity and on the output side against over current and over voltage. Automatic recovery shall be possible.

## **3. SYSTEM FEATURES:**

- a. The system should comply with the latest technology used by the leading telecom companies in USA.
- b. The system should be flexible and upgradeable.
- c. The equipment and circuits for tones and ringing shall form part of main PABX equipment.
- d. The equipment should have Automatic Route Selection facility to determine least cost route automatically based on class of service.
- e. Extension-to-Extension Dialing: It shall be possible to establish internal calls automatically by dialing any number without assistance of the attendant.
- f. Direct Outward Dialing: It shall be possible to establish external calls automatically by dialing any number without the assistance of the attendant (subject to class of service).
- g. Provision of DID & DISA: It shall have facility for direct inward dialing and direct inward station access.
- h. Direct Outwards Station Access (DOSA): Any Extension can access the trunk lines of the System through personal pass code to make outward calls from outside. All DOSA calls remain in account of that particular Extension.
- i. Access To Exchange Network: It shall be possible for an extension to get access to public network with or without the attendant in such cases, facility shall exist for the attendant to either dial the required number or to merely extend the junction to the extension and permit the subscriber to dial the number.
- j. Privacy of Call: Full privacy of conversation shall be available on all calls whether established directly or by the attendant. A warning tone of a specified frequency shall be applied when the attendant exercises trunk-offering facility on an extension user.
- k. Class of Service: It shall be possible to exercise control on an extension over the telephone usage by providing suitable class of service.
- l. Programmable Class of Service: The System should support programmable class of service for PSTN (STD/ISD/LOCAL) dialing as per need.
- m. System should have provision for Automatic Last Number Redial up to 20 numbers on Junction Line.

- n. During night, when the board is shut, external lines should be linked to any pre-defined extensions.
- o. Provision for connecting recorded voice / answering to make available extensions to an incoming call without the help of operator.
- p. Flexible Numbering Scheme: System should have provision for flexible numbering plan up to four digits for extensions.
- q. Universal Port Configuration: All ports of the System should be identical to facilitate flexible configuration of the System as per user needs.
- r. Discriminate Ringing: The System should support discriminate ringing to indicate internal & external calls.
- s. Mixed Station Dialing: To support all the features irrespective of type of telephone instruments i.e., DTMF or DECADEC.
- t. Versatile ASMDR The System should support ASMDR, which is a call accounting application that can record & print up to at least 3500 calls without dedicated printer.
- u. Calling Line Identification (CLIP): This is an optional feature and when ordered it enables the incoming calling number is displayed on Key/ Analog Phone.
- v. Remote Maintenance: The System programming can even be done from remote locations.

**4. In addition to the above the under mentioned features should be part of the system: -**

- a. Built-in Auto Attendant & 8 Channel Voicemail for 2 Hrs.
- b. Built-In Communications Assistant Licenses for all Users
- c. Multi-Party Conference
- d. Built-In Internal Paging etc;
- e. Flexible Numbering Plan 1, 2, 3, & 4 digits
- f. Single Digit Numbering for Imp. Services
- g. DECT/E-1/ISDN /VoIP Compatible

**5. EXTENSION FEATURES:**

- a. Automatic Call Back: Facility shall exist for an extension user on encountering a busy signal on a called extension, to invoke the automatic call back feature by dialing a code before hanging up. When both the calling and called parties are free, the call should be automatically put through. On no-answer the call may be disconnected after a specified period.
- b. Call Forwarding: An extension with this class of service shall be able to transfer all incoming



calls, temporarily to another pre-selected extension. Such requests shall be registered by dialing a code followed by the extension number Facility shall also exist for cancellation of a request registered earlier.

- c. Consultation Hold: An extension engaged on an external call (incoming or outgoing) shall be able to hold the call while making internal call for private consultation. The external subscriber shall not overhear such consultation. There must be facility of music during hold condition.
- d. Brokers Call: An extension engaged on an external call (incoming or outgoing) shall be able to hold the call while making another call and then alternate between the two. The other party shall not overhear such consultation. There must be facility of music during hold condition.
- e. Automatic Call Transfer: It shall be possible for an extension user to transfer incoming calls to another extension with or without help of the attendant.
- f. Executive/Secretary: A combination of call-forwarding, consultation
- g. Hold provisions to be there for executive to selectively answer calls.
- h. Executive Over-Ride: There must be facility offering priority to minimum five extensions to over-ride ongoing conversations.
- i. Conference Call: It shall be possible for an extension user (up to a maximum number of 6) to talk to each other at the same time on a conference circuit. One of the extension user or the attendant may set up the conference call.
- j. Call Pick-Up: It shall be possible for an extension user to pick-up incoming calls ringing on another extension without the help of the attendant.
- k. Call Re-Routing: It shall be possible for a call to be re-routed, without help of the attendant, to other pre-defined extensions when certain conditions apply.
- l. Auto Call Disconnection: The system should facilitate to fix the time of call beyond which it will be automatically disconnected.
- m. Dynamic STD Lock: The System should support that individual extension can lock outward dialling (STD/ISD/LOCAL) by a personal secret pass code to prevent misuse by others.
- n. Background Music: The Key Phone user can enjoy the light background music channelled from System When Voice DISA Card is incorporated.
- o. Auto-Answer / Auto-Off: Key Phone can be programmed for auto-answer after pre-set number of incoming rings. The Key Phone is automatically disconnected when caller disconnects.

## **6. ATTENDANT'S CONSOLE FEATURES:**

Stand-alone Attendant Console with the following features:

- a. The operator console should have soft/feather touch keys with easy to view display and busy lamp field for extensions. It will have easy handling facility for all internal & external

calls.

- b. Answering an Incoming Call: Facility should exist for answering an incoming call, whether from an internal extensions or external junction.
- c. It should be possible to identify the type of call that is internal, external line etc., from the call indicator.
- d. Call Queuing: All incoming calls should be presented to the console in order of the arrival. Facility should exist for giving preference to junction calls and from tie lines over calls from internal extensions.
- e. Serial Call: Facility should exist to extend an incoming call as serial call which should come back to attendant on completion of call permitting the attendant to route the call to another extension and so on.
- f. Call Waiting Display: An indication should be given when there is an unanswered call waiting in the queue. The lamp shall flash if number of calls waiting in the queue are two or more or if a call has been waiting for more than a predetermine time.
- g. Call Selection: Facility should exist to the attendant to select which incoming call to be answered first.
- h. Call Hold Facility: It shall be possible for the attendant to place an incoming junction call on hold pending further processing.
- i. Setting Up External Calls: Facility shall exist for enabling the attendant to set up the external calls for the extensions, which are allowed to access the public network. The attendant may either dial the number himself or merely extend the junction to the authorized extension user.
- j. Trunk Offering: The attendant shall be able to offer an incoming call to busy extension. A tone shall however, alert the talking parties when the attendant barges-in on a connection.
- k. Provision for Remote Supervisor Control to be there.
- l. Position Busy: When more than one console is in use, it shall be possible for a console to prevent further incoming calls from being assigned to it by busying itself. When a console is so busied all the waiting calls queued for the particular console shall be transferred to other console/extensions. Incoming calls in cases where two consoles exist shall be equally distributed. Facility shall exist during absence of the attendants for incoming external calls to be forwarded to one common or several individual extensions.
- m. Night Service: It should be possible for all incoming calls to be transferred to certain pre-defined extensions; in case this option has been exercised during the night.
- n. Headphone Connectivity: The operators can plug-in headphone to handle the call traffic efficiently while keeping her/his hands free for other jobs.

## **7. Digital Phone:**

Type-1: Desk Phone with 3-line Backlit Display (or better) & 24 Programmable Keys.

Type 2: Desk Phone with 3-line Backlit Display (or better) & 16 or more Programmable Keys.

Type 3: Desk Phone with 3-line Backlit Display (or better) & 8 or more Programmable Keys.

All types of digital phone mentioned above must have the following features:

- a. Multi Level Handset / Headset Volume Control
- b. Multi Level Speaker Phone Volume Control etc.
- c. 100 Numbers Call Log
- d. Hearing Aid Compatibility
- e. Multi Level Ringer Volume Control
- f. Station History Redial

## **8. SERVICE OBJECTIVES:**

Following service objectives shall be met:

- a. Under overload conditions, the lost call figures applicable shall be one in 200 for extensions-to-extensions call and one call in 100 for junction calls, overload being defined as 10% increase in occupancy of speech network and simultaneous 25% increase in the number of calls.
- b. The selection time under full load is defined as the time interval between the instant at which the required information for selection of the outlet has been received at the inlet and the instant at which outlet is ceased shall not exceed in 99% of the cases under traffic overload 1.5 seconds.
- c. The assumption to be made whilst dimensioning the links, junctions and attendants console shall be following:
  - The switching network shall provide access to the links/junction on non-blocking basis.
  - The equipment design shall be such that any special care and precaution on the part of maintenance personnel are kept minimum and no preventive maintenance is required.
  - The System shall have inherent capability to monitor its own performance and to detect, analyse and locate faults.
  - Fault repair at site should consist of only replacing the faulty card or plug-in modules.
  - The System should have remote maintenance facility.

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San Francisco

**SECTION-IV**

Introduction and Credentials of Bidder (To be submitted by the bidder)

Note: This shall be submitted by the bidder. This should be a brief introduction, background, company details, credentials & other registration and past performance of the bidder. They may attach any other documents such as company profile, company brochures, annual turn-over, achievement of the company, and previous experiences.

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San Francisco

**SECTION-V**

Format for submitting the Price Schedule for companies/agencies laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments in the new office building at Consulate General of India, San Francisco – 71 Stevenson Street Suite 2200, San Francisco, CA

Consulate General of India, San Francisco  
Tender No. SANF/ADMN/IT /885/1/2024

Date: \_\_\_\_\_

Sl. No.	Job/Item	Fixed Price in US\$	Details of taxes/duties
01	Price Schedule for companies/agencies for Laying of Local Area Network (LAN) (cable for Data & Voice) and Installation of new IPBX system and Telephone Instruments at Consulate General of India, San Francisco		

Name of the company /Firm/ Agency:

Address for the correspondence:

Contact details:

**Note:**

(a) The above quoted prices are complete in all aspects as per scope of the work but exclusive of all taxes & duties, if any.

(b) No extra cost shall be entertained and payable if any additional information or detail is provided later for carrying out the works as specified in the tender documents.

(c) We have examined tender conditions for the above-named services and have inspected the general conditions under which the services are to be carried out. We offer to execute and complete the service in conformity with this Tender, which includes all these documents for the Lump-sum fixed price exclusive of taxes.

(d) We understand that you are not bound to accept the lowest or any tender you may receive.

Yours Sincerely,

(Signature of the authorized Signatory)

Name & Designation:

Company Seal: