NOTICE INVITING TENDER

NIT No: IITH/008/MS/BSNL/2024　　　　　　　　**Date: 06.03.2024**

Tender for Supply, Installation and commissioning of SIP Server based EPABX solution at IIT Hyderabad

Table of Contents

INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

Registration:

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "**Online bidder Enrollment**" on the CPP Portal which is free of charge.

2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

4) Upon enrollment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.

5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

Searching For Tender Documents:

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.

3) The bidder should make a note of the unique Tender ID assigned to each tender,

in case they want to obtain any clarification / help from the Helpdesk.

Preparation of Bids:

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or ''Other Important Documents'' area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: *My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

Submission of Bids:

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid

has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

7) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

8) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

9) After submitting the bid online the bidder has to submit the hard copy of the Technical Bid (without any financial offer) duly superscribing the tender reference number at **"MS Section, Room No.A-222B, Academic Block-A, IIT Hyderabad, Kandi, Sangareddy-502284"** on or before technical bid opening date & time.

Assistance to Bidders:

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact details of the helpdesk are +91 0120-4711 508, +91 0120-4200462, +91 0120-4001002, +91 0120-4001005 and support-eproc@nic.in .

1. PURPOSE OF TENDER

IIT Hyderabad is seeking to implement SIP Server based EPABX solution with equipment to cover all the buildings of the Campus of IIT Hyderabad in KANDI. IIT Hyderabad plans the phase-wise deployment of SIP Server based EPABX solution in the campus. This tender is for Phase-1 deployment focusing on the PABX solution covering the following buildings in the campus: New Administrative Block, Biotechnology and Biomedical -BTBM, Material Science-MSME, Chemistry-CHY Buildings.

2. GENERIC REQUIREMENT TO THE SOLUTION

   a. High Availability that eliminates Single Point of Failure
   b. Scalability to support increasing number of connecting devices in the future
   c. Security to provide minimum protection of the network from attacks, unwanted or unexpected behavior of connecting devices
   d. Effective management at reduced operational cost
   e. Future-proof architecture to maintain the extensibility and scalability of the solution
   f. Proper balance between the performance and price

3. SPECIFIC REQUIREMENT TO THE SOLUTION

   a. Supply, installation, testing and commissioning of Server based PABX Solution components for providing SI Server based PABX Telephone connectivity in 4 new buildings of IIT Hyderabad.

i.	Biotechnology and Biomedical -BTBM	Academic Building
ii.	Material Science – MSME	Academic Building
iii.	Chemistry- CHY	Academic Building
iv.	New Administrative Block –	Non-Academic block

   b. The solution includes
      i. Supply.
      ii. Installation, including necessary cabling, testing, commissioning, and documentation.
      iii. Integration with the existing environment and
      v. One-year warranty for the overall solution. However, the warranty for the servers shall be for three years.

   c. Network operational centre (NOC) is in Academic block A. OFC connectivity from NOC to these building is in star topology.

4. SCOPE OF WORK

IIT-Hyderabad, has decided to install the latest technology SIP Based IP PBX System to provide seamless internal communication for the entire campus. The Scope of work comprises of the following:

1. Supply, installation, testing & commissioning of the new IP PBX System as specified in the detailed system specification, with third party PoE Switches, Gateways and SIP phone integration capability.

2. Delivery of entire material to above location including packing, handling, transporting, clearing, loading/unloading, Etc.

3. Installation, testing & commissioning of all the components/equipment/accessories, etc. as per technical specifications, and handing over to the IIT-H

4. Providing all-inclusive service including all spares, etc. during defect liability period.

5. All engineering, equipment, labour, and permits required to satisfactorily complete the work required by this Specification.

6. Existing LAN network cabling & Patch panels shall be used for connecting the New PBX system and SIP Phones, etc.

7. Testing, Identification and rectification of LAN nodes, from nearest network rack Patch panel to the Information Outlet at workstation, wherever required.

8. Site acceptance tests to establish satisfactory performance of the equipment's as per specifications.

9. The successful bidder must implement the solution at the site and complete the necessary integration of the solution with the core network infrastructure deployed at IIT Hyderabad and demonstrate the performance of the deployed infrastructure to the technical committee.

10. The warranty services will start only after installation and commissioning of the complete solution.

11. Liaising with BSNL for integration of SIP Trunks, DID, and Numbering scheme programming.

12. Providing compatible router/hardware required to configure the BSNL SIP Trunks.

13. Interconnectivity with existing Patch panels/ Switches with new Patch cords.

14. Testing of every extension upto the workstation, including configuration/programming of SIP Phone.

15. Monitor the performance of the new IP PBX System for 15 days and provide the necessary training to the operators and staff of IIT - Hyderabad.

16. Any other work related to but not specifically mentioned above, required for completion of the job as per the intent and scope of work.

17. The firm should supply the operation and maintenance manual in softcopy.

18. The firm should supply the Schematic of the deployed VoIP network setup.

19. The firm should maintain the IP PBX and accessories ordered herewith in full working condition during the warranty period and should repair / replace the parts free of charge during this period.

20. During the said period of 12 months (DLP) , the contractor (successful tenderer) shall make periodical inspection of the working of the entire system free of charge at least once in 90 days or earlier, if required, and attend to such other service that may be required of him.

21. In case of any technical snag it should be attended to within 24 hours.

22. Attending to break down calls on urgent basis.

23. IIT-Hyderabad will provide the following:
    i)   Fiber backbone connecting all building blocks, and network racks in the campus
    ii)   Non-PoE, Gigabit Ethernet Connectivity with Patch panels, in every network rack. One LAN Port in the non-PoE Switch in the existing network Rack shall be provided.
    iii) USP Power with proper earthing for all PoE Switches, Gateways, Router and Server, inside every network rack.
    iv)   Administration PC with in the LAN network, for configuration of IP PBX.
    v)   BSNL SIP Trunk Connectivity, upto Server rack.

Scope of Work for CAMC:
1. Periodic maintenance calls shall be made every once in a quarter.
2. In case of any technical snag it should be attended within 24 hours.
3. Shall provide emergency services on week-ends and holidays, if circumstances so require.
4. Free replacement shall be provided in case of any defect/fault/failures in any active components like Server, SIP phone, PoE Switches.
5. Liaising with BSNL for any SIP Trunk related service issues.
6. Service Reports should be submitted for every complaint attended.
7. Scope of Work is limited to IP PBX, Gateways, Operator Phones and SIP Phones only.
8. Payment: End of Quarter, on submission of Invoice along with Service call reports/Satisfactory report from the concerned department.

Exclusions:
1. Replacement of cables, plastic parts, LCD displays of Phones, Information Outlets and Laying of Cables, etc.
   Damage occurs due to lightning, over-voltage, negligence, mishandling, pests, acts of God and shifting of the system by unauthorized personnel.

bb. Site acceptance tests to establish satisfactory performance of the equipment's as per specifications.
cc. The successful bidder must implement the solution at the site and complete the necessary integration of the solution with the core network infrastructure deployed at IIT Hyderabad and demonstrate the performance of the deployed infrastructure to the technical committee.
dd. The warranty services will start only after installation and commissioning of the complete solution.

5. ELIGIBILITY CRITERIA

The Bidders should meet the following eligibility criteria to participate in the Tender and should enclose supporting documents for fulfilling the eligibility. It is the responsibility of the bidder to satisfy the norms regarding the genuineness and validity of the document furnished. Bids accompanied by documents not fulfilling the requirements outlined in this section will be subject to rejection without intimation or explanation.

a. Bidder should be a Registered company/firm in India and existing for the past Five years in India.
b. The Bidder should be a BSNL-empanelled EPABX Franchise with a Valid current empanelment.
c. Bidder shall have deployed a minimum of one BSNL SIP Trunk integration and EPABX Solution in Hyderabad.
d. The bidder shall be an authorised Cisco partner to manage existing Active network.
e. The bidder should have a registered office with minimum 3 qualified engineers in Hyderabad.
f. The bidder shall be a registered company in BSNL as System Integrator or Franchise partner or channel partner in Voice and Data.
g. The bidder should submit tender specific authorization letter from OEM of both voice and data network products.

h. OEM should have existing capability and infrastructure to provide technical support in India.

i. OEM should be a registered business entity in India with their own office in India.

j. The Authorized Bidder should possess an Authorization Certificate directly from the OEM and the same should be submitted in the physical and digital formats.

k. The OEM should have ZED certification issued by the MSME and Quality Council of India (QCI).

l. OEM should have a their own factory in India.

m. OEM should have their own R&D in India to develop, test and support country-specific security, country-specific IVA algorithms and such other patches.

n. Proposed OEM should have dedicated, toll-free telephone numbers for after-sales support.

o. OEM should have ISO/IEC 14001:2015, ISO 20000-1:2011, ISO 27001 2013, ISO 45001:2018 and ISO 9001:2015 certificates.

p. The products should qualify under CLASS- I LOCAL SUPPLIER as per Preferential Market Access (PMA) and Public Procurement Policy (PPP) Make In India (MII) scheme of the Govt. of India dated. 04.06.2020 & 16.09.2020 with 50% or latest applicable local content as per the Govt. norms.

q. In view of this you are requested to furnish the Format-5 regarding Undertaking for local content in our prescribed format duly certified by statutory auditors for the quoted telecom product. So please fill the same as enclosed format 5 (a) to (g), strictly certified by Statutory auditor. Proof of your appointment of statutory auditor should be enclosed with reply.

r. Bidder/OEM should provide escalation matrix defining who should handle incidents at each escalation level with names and contact details for each level.

s. Experience Criteria: The Bidder or it's OEM (themselves or through a reseller) should have regularly, manufactured and supplied same or similar category products to any Central/State Govt Organization/PSU/Public Listed Company for 1 year before the bid opening date. Copies of relevant contracts to be submitted along with the bid in support of having supplied some quantity during each of the year.

t. The Bidder is required to upload, along with the bid, all relevant certificates such as type test certificate, approval certificates and other such certificates as prescribed in the Product Specifications given in the bid document.

u. Datasheets of the product(s) offered in the bid are to be uploaded along with the bid documents. Buyers can match and verify the Datasheets with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

v. OEM should not be blacklisted by any Central/State Govt. Organization, PSU, Public Listed Company OR Indian Army.

OTHER TERMS AND CONDITIONS:

1. For Indigenous items, 100% payment after supply, installation and demonstration of the whole machinery/system/software to the satisfaction of the Institute/ Scientist/Technologist/Indenter/Professor.

2. Warranty & Maintenance contract / Validity of the Software: One (01) year from the date of installation/demonstration. Bidder should also mention the cost of yearly AMC up to 3 years (i.e. 2nd, 3rd and 4th years) beyond the warranty period.

3. **Installation & Testing:** The supply, installation, testing and commissioning shall be completed within a week from the date of issue of the Work order / PO. The installed system shall be performance tested at our premises in accordance with the manufacturer's/supplier's recommendation/specifications. Tests shall demonstrate the proper operation of the instrument and all components.

4. All supplies are subject to inspection and approval before acceptance. Manufacturer warranty certificates and manufacturer/Government approved lab test certificate shall be furnished along with the supply, wherever applicable.

5. Kindly furnish your PAN & GST Number etc. in your quotation for our records.

6. Conditional tenders will not be accepted.

7. **Requirement of registration:** Vide Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

    i. Any bidder from a country sharing a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department for Promotion of Industry and Internal Trade (DPIIT).

    ii. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

    iii. "Bidder from a country which shares a land border with India" for the purpose of this Order means:
    iv. An entity incorporated, established or registered in such a country; or
    v. A subsidiary of an entity incorporated, established or registered in such a country; or
    vi. An entity substantially controlled through entities incorporated, established or registered in such a country; or
    vii. An entity whose beneficial owner is situated in such a country; or

   viii. An Indian (or other) agent of such an entity; or
    ix. A natural person who is a citizen of such a country; or
    x. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

For details about registration procedures please visit the above mentioned OM. Mandatory documentary evidence regarding the bidder's registration with DPIIT is to be submitted along with the tender, failing which the tender shall be liable for rejection. Bidders are also requested to submit the Model Certificates as **per Annexure** for this tender as mentioned in the Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

8. **Public Procurement (Preference to Make in India), Order 2017:**

   a. IIT Hyd shall compare all substantially responsive bids to determine the lowest valuated bid. This Institute is following and abide with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and its subsequent amendments. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself**.**

   b. As per the above order and its subsequent amendments "Local Content" means the amount of value added in India which shall be value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all the custom duties) as a proportion of the total value, in percent. Accordingly, the suppliers will be classified in following categories.

       i)   Class I local Supplier – has local content minimum 50%
       ii)   Class II local Supplier – has local content minimum 20%

   c. **Verification of Local Content**: The Class I Local Supplier /Class II Local Supplier at the time of bidding shall be required to indicate the percentage of local content and provide self-certification as per Annexure D that the items offered meet the local content requirement. The details of the location(s) at which the local value addition is made also needs to be specified.

   d. **The bidders can be debarred for a period up to two years as, per Rule 151(iii) of GFR 2017, in case of false declaration.**

Complaint Redressal Mechanism:
   In case any complaint received by the procuring agency or the concerned Ministry/Department against the claim of a bidder regarding local content/domestic value addition in a product, the same shall be referred to competent authority at IITH or the relevant Ministry.

   The bidder against whom the complaint is received shall be required to furnish the necessary documentation in support of the domestic value addition claimed in

the product to authority. If no information is furnished by the bidder, such laboratories may take further necessary action, to establish the bonafides of the claim

A complaint fee of Rs. 2 lakh or 1% of the value of the domestically manufactured products being procured (subject to a maximum of Rs.5 lakh), whichever is higher, to be paid by Demand Draft to be deposited with Procuring Institute. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

False declarations will be in breach of the Code of Integrity under Rule 175 (1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

9. **ARBITRATION:**

   a. Unless otherwise specified, in all cases of disputes which cannot be settled by mutual negotiations, the disputes or differences shall finally be settled and binding on both parties by arbitration in conformity with the rules of Indian Arbitration Act, 1940. All disputes or differences what so ever arising between the parties out of relating to the construction, meaning and operation or effect of the general terms and conditions including the Purchase Order or the breach thereof shall be settled by Arbitration Act, 1940 and the award made in pursuance thereof shall be binding on the parties.

   b. Performance of the purchase order shall continue during arbitration and any subsequent proceedings.

   c. The Jurisdiction and Venue of arbitration shall be Hyderabad. The Arbitrator will be the Director, IIT Hyderabad, or his nominee.

10. **Note for MSME/NSIC Bidder:** If in the view of bidder, any exemption /preference/ relaxation is applicable to them from any of the eligibility requirements, under any Rules / Guidelines/ Directives of Government of India, bidder may submit their claim for the applicable exemption /relaxation, quoting the valid Rule/Guidelines/ Directives with a copy of such notification. In this case the bidder must submit necessary and sufficient documents along with the technical bid, in support of their claim. The relevant and valid certificates in support of claim of exemption must be submitted along with the Technical Bid.

11. All disputes shall be settled in the courts of Hyderabad/Sangareddy only.

12. The Director, IIT Hyd reserves the right to accept the offer in full or in parts or reject summarily or partly and also reserves the right to cancel the tender at any stage without assigning reasons.

13. *EMD :* EMD of **Rs. 60,000/-** in the form of online payment or Demand Draft/Bankers cheque in the name of Director IIT Hyd, should be submitted. The Demand Draft/Bankers Cheque in original should be posted/couriered/given in person to the **"Management Services Section, A-222B, Academic Block-A, IIT Hyderabad, Kandi, Sangareddy, Telangana-50228"** , before the last date of Opening of the Bid. In case of non-receipt of original document before the due date of opening of technical bid, the uploaded bid will be summarily rejected.

14. **Delivery: The Contractor is required to complete the delivery of all equipment, software and installation within the date stipulated by the Institute. In case it is found that the delivery has not been completed within the date as indicated, the IITH at its sole discretion may cancel the work order and the EMD shall be forfeited without any further reference to the Contractor.**

15. **Security Deposit: 5% of the Purchase order value**

    a. Successful bidder shall furnish a Security Deposit amounting to 5% of the Purchase order value in the form of a Demand Draft/Bank Guarantee (from scheduled Bank only) favoring the Director, IIT Hyd within 7 days from the date of award of contract. The Bank Guarantee should be submitted/routed through NeSL Portal.

    b. The Security Deposit will be forfeited if vendor fails to execute the order.

    c. The Security Deposit should be valid for warranty period + 60 days, as the same will extend the same as Performance Bank Guarantee. Hence while preparing the BG , the delivery period and installation and warranty + 60 days needs to be accounted for to cover the BG validity period.

    d. This Security Deposit will be refunded to the vendor only on satisfactory completion of all contractual obligations including warranty as per this Tender and Purchase Order issued against this Tender.

    e. Bank Guarantee wherever mentioned in this document may be read as "Bank Guarantee from any Scheduled Bank" only.

For **Online Payment of EMD/Security Deposit**: The EMD/Tender Fees can be also be paid online , the bank details are as follows:

Name of the Bank & Branch	Account Number	IFSC CODE	Branch code
SBI & IIT Hyderabad	30412797764	SBIN0014182	14182

The Online payment proof needs to be uploaded along with the Technical Bid.

For any technical query related to enquiry you may to contact
Mr. Md Jameel - Assistant Registrar, Email : ar.ms@iith.ac.in
Ms. M Badrinath– Joint Registrar, Email : hos.ms@iith.ac.in

With CC: office.admin@iith.ac.in

9. Technical Specifications

1	Communication System Architecture:	Compliance	Remarks
1-1	The communication Server should be based on State-of-the-art new generation SIP based Server on OEM appliance based sever /Commercially of the Shelf server for Converged IP telephony deployment.		
1-2	Built on Server-Gateway architecture to connect to traditional PSTN networks, traditional telephones and traditional tie-line networks.		
1-3	Gateways located at remote locations should support survivability to ensure business continuity in event of WAN link outage between Server and gateway.		
1-4	Call server application should be hardware independent for its deployment on customers choice server.		
1-5	Call Server should support IPV6 ready from Day1		
1-6	Communication Server should be scalable, distributable and the operating system shall be LINUX based. System shall employ IP at its core with IP switching technology. The Server should have VOIP and Voice mail server at its core.		
1-7	The system should offer maximum availability, with the switchover of call control processing functions to an alternate or redundant processor in the event of significant fault. The redundancy scheme should conform to the model used in most computer systems: the complete "mirroring" of the information (both static and dynamic data.) The switch over between 2 redundant call servers should not interrupt existing and established communications to include all analog, hard, soft and Video IP Phones. The complete set of programs and software modules must be duplicated in real time. In case of failure of the main Server (hardware or software), the standby Server (emergency mirror) must take over the control of communications instantaneously.		
1-8	All critical resource elements (call server, hard disks, data bases, IP interface cards, Processor, etc.) must be redundant and in a hot-standby configuration.		
1-9	In case of failure there should be a Standby server placed in the network to take care of the call initiation without any delay.		

1-10	Server should support auto sync option for configuration and real time data.		
1-11	There should be no delay in progress/initiation of calls after the failure of the main server.		
1-12	Shall support Active/Hot Standby redundancy with Provision of Local redundancy.		
1-13	The server should support hot redundancy in 1:1 Active-Active OR Active/Standby mode. I.e., if one Server fails the second server will take the complete load of the calls automatically without any manual intervention & without dropping any existing calls.		
1-14	There should be no restriction on number of endpoints being backed up in case of Call server failure.		
1-15	The redundant server should be separate Hardware not sharing elements like Hard drives, RAM, etc. to avoid a single point of Failure		
1-16	Encrypted signalling between Server-Terminals, Server-gateways, and SIP Terminal- SIP terminal		
1-17	For Multisite communication survivability is required at remote sites, ensure that gateways that will be installed at remote sites (branch offices) shall support Call Server for local gateway extension and keep communication alive between users of remote site.		
1-18	The communication system solution should have single box or multiple boxes entities. All the entities in the network shall be configurable from any location. It should be possible to provide Voice mail and UC features to all the users of the solution.		
1-19	The communication system should support 99.99% uptime of internal and external communications with no single point of failure. It should allow addition of new applications and new sites with lot of ease.		
1-20	Call processing for all users shall be centralized for common CDR for all the sites, unique extension numbers across all the sites.		
1-21	It should be feasible to increase the system capacity till 5000 ports without changing the server hardware or server software.		
1-22	Communication system Should be equipped with built in Unified communication server.		
1-23	UC server user capacity should be expandable without changing the server hardware or server software.		
1-24	Redundancy shall be supported for UC server application.		

1-25	Audio Conference Server (ACS) application shall be built in Call server; it shall not require separate server hardware. Server should support 60 participants in single conference.		
1-26	Audio conference server should support 500 no's of 3 party.		
1-27	All UC users can publish their status at a time		
1-28	It shall support Built in Voice mail server with 64 voice mail channels		
1-29	All Users of communication system should have access to their Voice Mail boxes		
1-30	Support of 20 simultaneous Voice Recording of calls.		
2	**Communication Server Capabilities and Capacity:**	**Compliance**	**Remarks**
-1	Expandable up to maximum number 5000 of users without changing the server hardware or server software. Users can be SIP users or Analog Phone users. For Analog users, VoIP-TDM gateways shall be used.		
2-2	System expandable up to maximum 99 numbers of SIP trunks with 1024 transcoding channels without changing the server hardware or server software. It should also support Analog, PRI, GSM, and Radio, E1 or E&M trunks using gateways.		
2-3	Server shall support Survivable Universal VoIP gateways (These gateways should support Analog users, Analog trunks, PRI trunks, GSM trunk, E1 trunk, E&M trunks and Radio trunks)		
2-4	Server shall support Non-Survivable Universal VoIP gateways (These gateways support Analog trunks, PRI trunks, GSM trunk)		
2-5	It shall support centralized voice mail storage		
2-6	It shall support storage of voice messages in network drive		
2-7	Up to 64 party Audio Conference should be supported		
2-8	The communication server must build up high reliable software architecture running on Linux operating system on industry grade rack sever or OEM hardened server		
2-9	The offered communication server should provide communications solutions over IP, no restriction should evolve in terms of quality of service, reliability and security		
2-10	The server system should support networking of two or more communication server over IP infrastructure		

2-11	Provide open interfaces and standard protocols for current and future applications		
2-12	Support of session initiation Protocol (SIP) to provide interface connection to ITSP and service providers		
2-13	Support 64 port Voice mail server, Voice mail server shall support features like call queuing, multi-language support, multiple MOH		
3	Communication Server Configuration:	**Compliance**	**Remarks**
3-1	Server Type –Commercial off-the-shelf RACK server of Dell /IBM/HP or OEM make		
3-2	Processor type -Intel® Xeon 2.1G, 12C/24T, 18MB Cache or above.		
3-3	Number of Gigabit Network Interfaces- 4 and one management port / BMC port		
3-4	CPU speed: Minimum 2.1 GHz or higher		
3-5	CPU core: 12 or higher and RAM size – 1 * 64 GB (with scalable up to 128 GB) or above		
3-6	Hard disk drive size - 1TB SSD or above		
3-7	Number of Hard disk drives -2		
3-8	Operating System-should run on open-source secure operating system		
4	System Security:	**Compliance**	**Remarks**
4-1	The system must incorporate advance security features like real time medial encryption.		
4-2	System should have facility to disable Telnet and FTP server access to have maximum security.		
4-3	Support of SIP over TLS and SRTP without any licenses. It should be IPv6 ready from first day		
4-4	System SIP trunk must accept traffic from trusted IP source, and it must support digest authentication for security of SIP traffic.		
4-5	System should block GUI access after certain unsuccessful attempts of login. Also, it should support Password Ageing. · Email notification should be sent of all Activity and Fault logs to predefined minimum two mobile numbers and two Email respectively.		
4-6	Operating System used by the communication system must not use or natively support network resource sharing services such as NFS, samba, LPR etc.		

4-7	Password and access control must include at least: -		
4-8	Shadow Passwords to prevent the possibility of an aggressor to easily read or deduce system or account access passwords.		
4-9	Password Aging with configurable time periods.		
4-10	Usage of MD5 algorithm (or stronger) for password encryption.		
4-11	Internal OS controls for remote point of access restriction and service availability. (i.e. TCP Wrappers and Trusted Hosts)		
4-12	IP Phones should not support direct, external initiated, connections via HTTP, telnet, FTP, TFTP or any other protocol as means to prevent distributed Denial of Service attack exploitation.		
4-13	IP Phones must support 802.1x (EAP-MD5 or better) for authentication and access control to the network, this mechanism must allow the user to be connected to the system once he has passed the authentication process; not before		
4-14	System should have options to configure voice VLAN number, allowing for the separation of voice and data traffic		
4-15	Administration users connecting directly to the Call Server (console) shall be authenticated		
4-16	All management traffic between a remote console/session and the system must be encrypted. (HTTPS for web sessions etc.)		
4-17	The management platform must provide Role Based Account Management to define different levels of administrator access depending on specific function responsibility		
5	Software Up gradation, Maintenance & Management:		
5-1	Web-based GUI for maintenance, administration, and configuration. Dedicated programming terminal should not be required.		
5-2	System should support remote configuration Over WAN or any computer in LAN		
5-3	System should support up gradation with direct GUI upload and there must minimum breakdown while up gradation of system.		

5-4	The system can be programmed through Ethernet directly with online GUI without any external devices or modem. · The system shall have a built-in remote maintenance facility.		
5-5	The system can be programmed remotely over the internet without any modem required on the System side		
5-6	System should maintain logs of all faults occurred. · Provision of notifying system admin by sending email on specific email Id.		
5-7	Reports of faults/activity should be available through GUI in Printable format		
5-8	System should have buffer of storing minimum 500 faults/error logs		
5-9	System Fault logs should be available in online/offline mode · Fault log notification on operator console.		
5-10	SNMP support for warning messages traps, Errors must be sent to SNMP server with any SNMP v1, v2 & v3 protocols. System should have notification of all alarms, logs to be saved in system.		
5-11	System shall support notification of faults over Email · System must allow simultaneous GUI login from with 3 levels of access		
5-12	Management platform must provide a single graphical client (Graphical User Interface (GUI))		
5-13	Management platform must provide web access allowing the administrator to manage the system to use any PC with an internet browser.		
5-14	Configuration and Programming of services, users, categories and all system parameters and features. This must provide management in local or remote environments of a single system or a network. The network manager will be able to configure all locations users		
5-15	Fault and error log notification availability on NMS software		
5-16	Generate reports about faults and errors in PDF format		
5-15	Fault and error log notification availability on NMS software		
5-16	Generate reports about faults and errors in PDF format		

5-17	Access to exchange directory should be available through system GUI.it should be possible to Export/import Exchange directory in excel, csv format.		
5-18	Integrated Directory. It shall be possible to provide display equipped voice terminals with access to system directory on IP phones.		
5-19	System shall have the provision of automatically identifying and isolating faulty trunks. This should be done on daily basis automatically or invoked by System administrator and results output on Maintenance terminal.		
5-20	It should relieve the user from remembering lengthy procedure and formats for data changes and shall use simple English commands.		
5-21	It should have options to record voice help message that can be available to all users by dialing voice help code.		
5-22	The administration should be secured by way of password protection. It should be possible to have different layers of password.		
5-23	The system management terminal shall be capable of adding/ modifying hardware/software at main location and remote Location from main location only		
5-24	System usage: The usage display should enable users to view the results of running calls.		
5-25	Performance/status/information. The software, through real time monitoring should be able to provide the status of extension and trunks to the EPABX performance at any time on request basis through screen displays		
5-26	Fault Detection/Alarm: The software should constantly monitor the exchange performance and report/generate suitable alarms during any failures to indicate/localize the faults besides keeping the error-logs for various hardware failure detected.		
6	Other Features:	Compliance	Remarks
6-1	Return call to original caller		
6-2	4-digit pin dialing, Virtual Stations		
6-3	Emergency conference		

6-4	Account Codes (Forced)		
6-5	Allowed and Denied Lists, trunk reservation		
6-6	Alternate Number Dialing		
6-7	Backup CDR		
6-8	Anonymous Call Rejection (SIP)		
6-9	Backup-System Configuration		
6-10	Barge-in		
6-11	Call Budget on Trunks		
6-12	Call Cost Calculation		
6-13	Call Duration Control		
6-14	Call Progress Tones (Programmable,		
6-15	Call recording, Voice Prompts for Tones		
6-16	CLI based Routing, Routing of calls to only permissible legal networks (Logical Partitioning)		
6-17	Closed User Group (With/Without System ID)		
6-18	Conference Dial-in		
6-19	Conference – Multiple Participants		
6-20	Conversation Recording		
6-21	Daylight Saving Time (DST)		
6-22	Direct Inward Dialing (DID)		
6-23	Direct Dialing-In (DDI on T1/E1/PRI)		

6-24	Direct Inward System Access (DISA)		
6-25	Dynamic DNS (DDNS)		
6-26	E-mail Notification (VMS)		
6-27	Embedded Registrar and Proxy Servers (SIP Server) · Fax over IP (T .38 Relay and Pass-Through)		
6-28	Hot Outward Dialing (With/Without Number & Delay) · Least Cost Routing (Number, Time and Service provider) · Live Call Screening (VMS)		
6-29	Message Wait Indication		
6-30	Multi-Stage Dialing		
6-31	Online CDR		
6-32	Peer-to-Peer Calling		
6-33	Real Time Clock		
6-34	Region Selection		
6-35	CDR Posting (Call Accounting System Interface)		
6-36	Inbuilt Call Detail Records		
7	Voice Mail features:		
7-1	The system shall integrate in-skin voice mail module on CPU with 2000 hours of storage capacity and dedicated mailbox for each extension.		
7-2	The Voice mail server support 64 channel expansions; VMS shall support features like call queuing, multi-language support, multiple MOH.		
7-3	Attend as much as 64 calls simultaneously with flexibility of routing callers to desired extension or delivering information depend upon the selection		
7-4	Dial-by-Name to reach the intended user directly without knowing/remembering extension number		

7-5	Selectively allocate voicemails to users with the flexibility of customizable mailbox size and greetings for All/Selective users		
7-6	Group mailbox to share messages between departmental groups		
7-7	Anywhere access to voice mail with just a phone call · Password protected secured voice mail access		
7-8	Record important conversations for future reference and record maintenance		
7-9	Redirection of voice mails to another extension in case of non-availability		
7-10	Tag voice mails while Forwarding Messages to Another Mailbox		
7-11	Broadcast voice message to a group of personnel, at a go · Distribution lists for delivery of voice mails to different set of users or groups		
7-12	Message wait indication via ring, change in dial-tone, voice message or message wait lamp		
7-13	Notification of a new voice mail via email alert or a phone call		
7-14	The system shall have a conversational recording in the mailbox should be available with voice mail system card of System. Conversation recording should be possible on Analog/IP as well as Mobile SIP Smartphones (Android/iPhone).		
7-15	Voice mail box availability for all users of system		
8	Specification for Type -1 IP Phone/IP based Operator console (Same OEM Make)		
8-1	2 x 10/100 Mbps LAN & PC Ports		
8-2	Graphical LCD with Backlit		
8-3	LED for Incoming/Ongoing Call, Mute, Hold		
8-4	Add on 32 key module support, maximum key modules shall be supported		
8-5	Should be possible to connect additional key modules up to 128 keys		
8-6	Intuitive User Interface with Icons		

8-7	Multiple Languages Caller ID with Name, Number · 45 or more keys including 4 Context Sensitive Hard Keys · RJ9 Handset Port		
8-8	RJ9 Headset Port		
8-9	3.5 mm Headset Port		
8-10	Installation: Wall Mount, Table-top		
8-11	CE, FCC-15, RoHS		
8-12	Power over Ethernet (IEEE 802.3af)		
8-13	Power Consumption: 5W (Typical)		
8-14	Connector: DC Power Jack, 5VDC/600mA		
8-15	Operating Temperature Range =0 to 45°C		
8-16	Storage Temperature = 0 to 55°C		
8-17	Message wait Lamp, Ringer Lamp, Voice Mail, Call Pickup – Group and Selective, Paging		
8-18	Mute, Call Hold, Do Not Disturb, Speed Dial, Hotline, Redial, Call Back, Auto Answer, Call Forward, Call		
8-19	Waiting, Call Transfer, Room Monitoring, conference,		
8-20	Directory, Call Logs, Paging Dial-by-Name		
9	Specification of Type-2 IP Phone: (Same OEM Make)		
9.1	Display:		
	· 128 x 64 –pixel Graphical LCD (3.1 Inch)		
	· LED for Call and message wait Indication		
	· Intuitive user interface with icons		

9.2	Feature Keys		
	· 3 Feature Keys : Headset, Mute, Hands-free speakerphone · 4 Context Sensitive Keys		
	· 2 Line keys Function such as navigation, Call Appearance , Keys		
9.3	Interface		
	· 2 X RJ45 10/100/1000 Mbps Ethernet Ports		
	· Power Over Ethernet (IEEE 802.3af)		
	· 1 x RJ9 Handset port		
	· 1 xRJ9 Headset port		
	· DC Power Jack		
9.4	Enhanced Desktop Viewing		
	· LED for Call & message wait indication		
	· Intuitive user interface with Icon		
9.5	Clear Voice		
	Codec: G.722, G.711(A/µ),		
	G.729, G.726, G.723		
	DTMF: In-band, Out-of-band		
	(RFC 2833) and SIP INFO		
	Full Duplex Speakerphone with		
	VAD, CNG, AEC, AJB & AGC		

9.6	Power Supply		
	· Power on Ethernet (IEEE 802.3af) ; · 5VDC 2A		
9.7	Power Consumption		
	1W(Typical)		
9.8	Operating temperature : 0°C to 45°C		
9.9	Operating Humidity : 10 ~ 95%		
9.1	Secure Communications		
	• Extended (Proprietary) SIP Protocol		
	• TLS/SRTP for Voice Security		
9.11	Adjustable Desk mount		
	External AC Adaptor		
10	Specification of Mobile UC client for Android/IPhone:		
10-1	Shall be installed on android OS 5.1 or later		
10-2	Shall be installed on IOS 7 or later · Comprehensive Call Management, One-Touch Access to PBX Features		
10-3	Corporate Directory Integration, Video Calling, Favorites ·		
10-4	Presence Sharing and Instant Messaging, Voice Mail Access		
10-5	Conversation Recording, Call management – call hold, transfer, forward, DND and intercom.		
10-6	Multiparty audio conferencing, Blind transfer.		
10-7	Menu options - Call Pickup, Paging, Message wait, Call Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In Conference, CLIR, Room monitoring & Call supervision, Dial by extension		

10-8	Call Screening - ACB, Forced Answer, Global Hold, General		
10-9	Call Park, Call Chaining, IR & Barge-IN		
10-10	Multiple call support, One touch transfer, Wi-Fi to cellular Handover.		
10-11	Multiple language support, Call toggle, Auto call back, Auto redial, Forced answer.		
10-12	Open a door, Call logs, Missed calls notification, DND override		
11	Specification of Windows Desktop based UC Soft client.		
11-1	Windows Desktop based UC Client for Seamless Collaboration, shall support installation on windows 7 service pack 1 or higher.		
11-2	Corporate Directory Integration, 1000 DSS & 600 BLF keys for Monitoring		
11-3	Popup Window for Incoming Message and Call, Presence Sharing and Instant Messaging		
11-4	Video Calling Drag and Drop Conference, Contact Grouping, Video call, Voicemail, Favorites.		
11-5	Call management – call hold, transfer, forward, DND and intercom		
11-6	Multiparty audio conferencing, Blind transfer		
11-7	Menu options - Call Pickup, Paging, Message wait, Call		
11-8	Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In		
11-9	Conference, CLIR, Room monitoring & Call supervision		
11-10	Handover to external number, Smart directory access		
11-11	Dial by extension		
11-12	Call Screening - ACB, Forced Answer, Global Hold, General		
11-13	Call Park, Call Chaining, Call Recording, IR & Barge-IN, Multiple call support		

11-14	One touch transfer, Call toggle, Auto call back, Auto redial, Forced answer		
11-15	Open a door, Call logs, Missed calls notification, DND override, Click to Call, Outlook Integration		
11-16	Calendar Integration, Keyboard Integration		
12	Specifications of 16/24/32 port FXS Gateway		
12-1	The equipment shall be electronic type. It shall have microprocessor / micro controller based on Stored Program Control Technique.		
12-2	It shall employ IP/PCM/TDM, 100% non-blocking, Digital-IP switching technology.		
12-3	The Gateway device should provide up to 16 or 24 or 32 FXS ports		
12-4	The Gateway device should have 1xEthernet ports for Network Connectivity		
12-5	The Gateway device should have built-in basic data routing features: 1. DHCP Client 2. PPPoE 3. IPv4 4. TCP/UDP 5. SNTP 6. Dynamic DNS 7. VLAN/COS (Layer 2) 8. Port Forwarding 9. Demilitarized Zone (DMZ) 10. NAT/STUN Support 11. QoS (Layer 3) 12. Certificate Manager 13. Static Routing Digest Authentication		
12-6	The Gateway Device should have following remote monitoring and management features: 1. Password Protected Web based UI 2. TR069 for Mass Management 3. SNMP for Mass Monitoring PCAP Trade		
12-7	The Gateway device should have following call management features for operation with PBX: 1. Call Hold/Pickup/Toggle		

	2. Message Wait Indication 3. Call Transfer- Attended/Blind 4. Call Forward 5. Call Conference 6. Do Not Disturb 7. Call Waiting 8. Hot line 9. Automatic Number Translation 10. Black List Call Detail Records (CDR) for 2000 Calls		
12-8	The Gateway device should have Peer-to-peer dialing facility with 500 table entries		
12-9	The Gateway device must have interoperability with BroadSoft		
12-10	The Gateway device should have interoperability with leading ITSP to ensure smooth operation for VoIP connectivity 1. Broadvox 2. MegaPath 3. NexVortex 4. SOTEL systems 5. Vitelity Voxbone		
12-11	The Gateway device should have following parameters for excellent speech experience: 1. Dynamic Jitter Buffer 2. Voice Activity Detection (VAD) 3. Comfort Noise Generation (CNG) G.168 Echo Cancellation		
12-12	Device should be secured from internet attacks and threats using TLS/SRTP encryption		
12-13	Device should provide support following VoIP codes to ensure smooth transcoding: G.711 (A/µLaw), G.723, G.729, GSM-FR, GSM-EFR, iLBC		
12-14	Device should be able upgrade firmware/configuration automatically base on "Every Power On", "Scheduled Time"		
12-15	Device should be able upgrade firmware from Server, PC/Laptop for ease of management		
12-16	The Gateway device should have configurable PIN authentication and access codes for ease of operation with connected PBX systems		
12-17	The Gateway device must have emergency number dialing feature		

12-18	The device should have Fax over IP (T.38 and Pass Through) to send and receive Fax over VoIP network		
12-19	The Gateway should be available with Power supply/Power Adaptor 24V DC, 2.5A with maximum 60W power Consumption		
12-20	Device should have minimum 8 SIP Accounts		
12-21	Device should have minimum 8 VoIP Channels for Concurrent Calls		
12-22	The Gateways should have Reset Button for default the IP address		
12-23	Device should have LED Indications for each port, Status and Power supply		
12-24	The Gateway should have Allowed and Denied Numbers List for Blocking Unwanted Numbers		
13	**Specifications of 4/8 port FXS Gateway**		
13-1	The equipment shall be electronic type. It shall have a microprocessor / micro controller based on Stored Program Control Technique.		
13-2	It shall employ IP/PCM/TDM, 100% non-blocking, Digital-IP switching technology.		
13-3	The Gateway device should provide up to 4 or 8 FXS ports		
13-4	Device should have up to 4 or 8 SIP Accounts		
13-5	Device should have up to 4 or 8 VoIP Channels for Concurrent Calls		
13-6	The Gateway device should have 1 LAN & 1 WAN ports for Network Connectivity		
13-7	The Gateway device should have built-in basic data routing features: 1. DHCP Client 2. PPPoE 3. IPv4 4. TCP/UDP 5. SNTP 6. Dynamic DNS 7. VLAN/COS (Layer 2) 8. Port Forwarding 9. Demilitarized Zone (DMZ)		

	10. NAT/STUN Support 11. QoS (Layer 3) 12. Certificate Manager 13. Static Routing Digest Authentication		
13-8	The Gateway Device should have following remote monitoring and management features: 1. Password Protected Web based UI 2. TR069 for Mass Management 3. SNMP for Mass Monitoring PCAP Trade		
13-9	The Gateway device should have following call management features for operation with PBX: 1. Call Hold/Pickup/Toggle 2. Message Wait Indication 3. Call Transfer- Attended/Blind 4. Call Forward 5. Call Conference 6. Do Not Disturb 7. Call Waiting 8. Hot line 9. Automatic Number Translation 10. Black List Call Detail Records (CDR) for 2000 Calls		
13-10	The Gateway device should have Peer-to-peer dialing facility with 500 table entries		
13-11	The Gateway device must have interoperability with different service providers		
13-12	The Gateway device should have following parameters for excellent speech experience: 1. Dynamic Jitter Buffer 2. Voice Activity Detection (VAD) 3. Comfort Noise Generation (CNG) G.168 Echo Cancellation		
13-13	Device should be secured from internet attacks and threats using TLS/SRTP encryption		
13-14	Device should provide support following VoIP codes to ensure smooth transcoding: G.711 (A/µLaw), G.723, G.729, GSM-FR, GSM-EFR, iLBC		
13-15	Device should be able upgrade firmware/configuration automatically base on "Every Power On", "Scheduled Time"		

13-16	Device should be able upgrade firmware from Server, PC/Laptop for ease of management		
13-17	The Gateway device should have configurable PIN authentication and access codes for ease of operation with connected PBX systems		
13-18	The Gateway device must have emergency number dialing feature		
13-19	The Gateway should be available with Power supply/Power Adaptor of 12VDC, 2 A with maximum 15W power Consumption		
13-20	The Gateways should have Reset Button for default WAN IP address		
13-21	Device should have LED Indications for each port, Status and Power supply		
13-22	The Gateway should have Allowed and Denied Numbers List for Blocking Unwanted Numbers		
13-23	The Gateway should be Wall mounting & Table top		
13-24	Certification: TEC, CE, FCC, ROHS		
	List of Approved Makes:		
a)	SIP IP PBX: Alcatel, Avaya, Cisco, Matrix,Mitel		
b)	SIP IP Phones: Alcatel, Avaya, Cisco, Matrix,Mitel		
c)	PoE Switches: Alcatel, Cisco, Extreme, Juniper		
d)	Passive Items: Systmax, Legrand, Molex, R&M.		

	5000 port Communication System/SIP Server based PBX Capabilities:	Compliance	Remarks
	Approved Makes: Avaya / Alcatel-Lucent / Cisco / Mitel / Matrix / NEC		
	The 5000 ports Pure IP communication System / Gateway should be configured for:		
1	002 no's of Operator console IP based		
2	060 no's of SIP trunk/channel License		
3	300 no's of SIP user license		
4	32 Party Conference Channel License		
5	32 Channel Voice Mail License.		
6	16 no's of IP Phone (Type1)		
7	16 no's of IP Phone (Type2)		
8	8/16/24/32 Port VoIP Gateways as per BoQ.		
9	Network Accessories as per BoQ		
10	3 Months dedicated on-site skilled manpower		
11	Annual Maintenance Contract for 4 Years.		

ANNEXURE-C

MANUFACTURER'S AUTHORIZATION & WARRANTY SUPPORT DECLARATION
(ON OEMs Letterhead)

Date:

Tender No / GeM bid no:
To
The Director,
Indian Institute of Technology Hyderabad,
Kandi, Hyderabad – 502 284

We, _____ [name of Manufacturer], who are official manufacturers of [Insert type of goods manufactured] having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following goods, manufactured by us [insert name and or brief description of the goods], and to subsequently negotiate and sign the contract.

We hereby extend our full guarantee, warranty, availability of spare parts and AMC support in accordance with the Terms and Conditions of Contract with respect to the Goods offered by the above firm.

Authorized representative of the Manufacturer   Authorized representative Bidder

Signature: Signature:

Name: Name:

Address: Address:

Mobile No: Mobile No:

Email ID: Email ID:

ANNEXURE D
Declaration for Local Content (on OEM's Letter Head)

(To be given on Company Letter Head - For tender value below Rs.10 Crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 Crores)

Date: _____

To,
The Director,
Indian Institute of Technology Hyderabad,
Kandi, Sangareddy 502284

Sub: Declaration of Local content

Tender Reference No: _____

Name of Tender / Work: - _____

1. Country of Origin of Goods being offered: _____

2. We hereby declare that items offered has ___% local content **(Please provide exact %)**.

3. Details of location at which local value addition will be made / made: (Complete address to be mentioned) _____

_____

"Local Content" means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.
"*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law."

Yours Faithfully,
(Signature of the Bidder/OEM, with Official Seal)

ANNEXURE-E

CERTIFICATE BY BIDDER- DPIIT REGISTRATION

" I have read the clause regarding restrictions on procurement from a bidder of a
country which shares a land border with India; I certify that this bidder is not
from such a country or, / if from such a county, has been registered with the
Competent Authority (copy of the Registration Certificate enclosed) . I hereby
certify that his bidder fulfils all requirements in this regard and is eligible to be
considered.

Signature with Date and Stamp
Of the Bidder

ANNEXURE-F

<u>DECLARATION REGARDING CLEAN TRACK/NO LEGAL ACTION</u>

(to be provided on letter head of the firm)

I hereby certify that the above firm namely _____ is neither
blacklisted by any Central/State Government/Public Undertaking/Institute nor any
criminal case registered / pending against the firm or its owner / partners anywhere
in India preceding three years from the date of publishing of tender.

I also certify that the above information is true and correct in any every respect and in
any case at a later date it is found that any details provided above are incorrect, any
contract given to the above firm may be summarily terminated and the firm
blacklisted.

Date: Authorized Signatory

                                                         Name:
Place: Designation:
                                                         Contact No.:

ANNEXURE-G

BIDDER INFORMATION FORM

Company Name   : _____

Registration Number   : _____

Manufacturer /Distributor   for   the   quoted   product   : _____

Registered Address : _____

_____

Name of Partners /Director:_____

_____

City   : _____

Postal Code   :_____

Company's Establishment Year :_____

Company's Nature of Business :_____

Company's Legal Status   1) Limited Company
(tick on appropriate option) 2) Undertaking
                      3) Joint Venture
                      4) Partnership
                      5) Others (In case of Others please specify)

Company Category   1) Micro Unit as per MSME
                    2) Small Unit as per MSME
                    3) Medium Unit as per MSME
                    4) Ancillary Unit
                    5) SSI
                    6) Others (In case of Others please specify)

CONTACT DETAILS

Contact Name:_____

Email Id   :_____

Designation   :_____

Phone No   :(_____) _____

Mobile No :_____

BANK DETAILS

Name of Beneficiary : _____

A/c. No. CC/CD/SB/OD: _____

Name of Bank   : _____

IFSC NO. (Bank)   : _____

Branch Address and Branch Code: _____

_____

Other Details

Vendor's PAN No. _____

Vendor's GST _____

ANNEXURE – H

ACCEPTANCE OF TENDER TERMS
(To be given on Company Letter Head)

Date:

DD/MM/YYYY

To,
The Director
Indian Institute of Technology Hyderabad
Kandi – 502 285.Telangana, India

Sub: Acceptance of Terms & Conditions of Tender.
Tender Reference No/GeM Bid no: _____
 Name of Tender / Work: -
Dear Sir,
1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender' from the web site(s) namely _____as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.
Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Sl	Description	UoM	Qty	Rate	Amount	GST%	GST Value	TOTAL
	Price Schedule for Supply, Installation, Testing and Commissioning of IP PBX System for IIT-Hyderabad Campus.							
	IP Based EPABX System with the following specifications: Server with pre-loaded VoIP UCS Platform, IP @ Core, PCM/TDM switching, Nonblocking, License Dongle for Software	No's	01					
	a) 300 SIP Extension Licenses (Scalable)	No.s	300					
	b) 050 SIP Trunk Licenses	No.s	50					
	c) 32 Channel Voicemail Licenses	No.s	32					
	d) 32 Party Conference License	No.s	32					
	Redundant Server with Licenses	No.s	01					
	Sub Total A							
2	IP based operator console phone with DSS keys. SPARSH VP510E: Proprietary IP Phone with PoE. 240 x 64 Pixels Graphical LCD with Backlit. 4 Context Sensitive Keys, 16 DSS Keys.	No's	1					
2-a	Additional accessory for Operator Console phone: DSS532: DSS Console with 32 Keys. Max. 4 Consoles per Phone	No's	1					
3	Extended SIP Phone with PoE. 2 x 10/100/1000 ports, 128 x 64 Pixels Graphical LCD, 3 Feature Keys, 4 Context Sensitive Keys, 2 Line Keys.	No's	4					
4	Gateway: SIP/MGCP, 8 FXS, T.38 FAX, G.711.G.723.1.G.729A/B, TR069/ SNMP, IPV6, IMS	No's	4					
5	Gateway: SIP/MGCP, 16 FXS, T.38 FAX, G.711.G.723.1.G.729A/B, TR069/ SNMP, IPV6, IMS	No's	7					
6	Gateway: SIP/MGCP, 24 FXS, T.38 FAX, G.711.G.723.1.G.729A/B, TR069/ SNMP, IPV6, IMS	No's	9					
7	Gateway: SIP/MGCP, 32 FXS, T.38 FAX, G.711.G.723.1.G.729A/B, TR069/ SNMP, IPV6, IMS	No's	3					

8	1Mtr Line Cord for FXS Gateway to Patch Panel. Make: Bestnet	No's	600					
	Sub Total B							
9	Supply and installation of 6U Wall mount, with Cable manager, Fan module, shelve, PDU etc.	No's	29					
10	Supply, Installation and termination of 24 Port Straight, Cat6A, Loaded patch panel.	No's	29					
11	Service Charges for Removing voice node cables from existing patch panel and racks, re-routing the cables to new rack, re-termination to new patch panel, dressing of cables, testing and identification.	Nodes	600					
12	Supply. Fixing and termination of 6/16Amps 3 Pin Modular AC Socket with On/Off Switch, including surface mount 3 module back box , faceplate, 5Mtrs 3Core 2.5Sq mm Cable and PVC casing.	Point	20					
13	Monthly Charges for Onsite Support Engineer for maintenance of Complete Telephone network, post installation.	Mths	3					
14	Testing, Commissioning and documentation charges	LS	1					
	Sub Total C							
	TOTAL (SUPPLY AND INSTALLATION)							
15.COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT CHARGES AFTER 1YR WARRANTY.								
1	2nd Year AMC Charges	LS	1					
2	3rd Year AMC Charges	LS	1					
3	4th Year AMC Charges	LS	1					
4	5th Year AMC Charges	LS	1					
	TOTAL CAMC CHARGES							

Bidder has to upload all the required documents in support of their eligibility criteria and annexures along with compliance sheet in a SINGLE PDF FILE and upload the same on the CPP Portal.