



INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY
(An Autonomous Institute under Department of Science and Technology, Govt. of India)
PaschimBoragaon, Vigyan Path, Garchuk, Guwahati-781035

Notice Inviting Quotation for IP Telephony Solution

NIQ. No: 128

Date: 09/03/2018

Sealed quotations are invited in two bid system from reputed Manufacturer/authorized distributors/dealers for supply, installation, design of IP Telephony Solution at Institute of Advanced Study in Science and Technology (IASST). Bid document with other terms & conditions can be submitted with bid fee and notified EMD as per following:

Bid fee-DD (non - refundable)	Last Date and Time for submission of bids	Venue for submission & Opening of Technical Bids
Rs.1000/-	Dt 09/04 /2018 by 5:00 P.M	Office Of the Registrar, IASST, Guwahati – 781035 Dt. 10/ 04/ 2018 at 11:00A.M

There will not be any separate notice for participation of bidder in the bid opening time.

Detail tender document will be available at IASST website <http://iasst.gov.in>

Registrar, IASST

1. Introduction

Institute of Advanced Study in Science and Technology (IASST), Guwahati Assam has decided to upgrade its telephone system to complete IP based Telephony Solution.

In this regard IASST invites bids from reputed Manufacturer/authorized distributors/dealers for the supply, installation and commissioning of IP Telephony as mentioned in the Annexure.

Bidders are advised to study this tender document carefully before submitting their proposals in response to this Notice. Submission of proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications. Bidders are also requested to do a proper site visit for better understanding the requirements.

Scope of Work

- a) The bidder is required to supply, install and commission the IP Telephony Solutions at Institute of Advanced Study in Science and Technology, Guwahati as per the specifications and conditions specified in the different parts of this Tender document.
- b) The bidders are advised to visit the above mentioned site before quoting bid in the tender.
- c) The bidder shall be ready to give the buyback benefits for the existing EPBX.
- d) The successful bidder shall give comprehensive hands on Training to the IT Team/ officials of IASST on operations.
- e) The successful bidder shall carry out the work strictly as per specifications mentioned in various sections of this tender document to the satisfaction of the indenting department.
- f) Workmanship and material used should be of the best quality.
- g) Bids shall be considered only in those cases where the bidder has quoted for the entire scope of the work.

2. Technical Specifications (Annexure III)

The below mentioned Specification tables should be submitted with filled in compliance column as part of the technical proposal by the bidders.

The bidder and OEM will be responsible for offered system should be the latest model of the vendor being supplied worldwide. If IASST find that the offered model is EOL or EOS or both then IASST authority has the right to disqualify the bidder.

OEM Criteria:

1. OEM Should be in consistently present in Gartner quadrant for Corporate Telephony from last 5 years and at least 3 times in Leader quadrant. Record must submit
2. OEM Must have R&D Setup in India from Last 3 years.
3. OEM Must have Valid TEC Certificate for Proposed solution. Same need to submit along with bid.
4. OEM should have implemented minimum 3 similar projects in Govt. of India establishments which includes one with minimum 1000 extensions/connections, one project in Indian Govt Research Organization and one in North East region.

1. IP-PBX SYSTEMS

The proposed IP-PBX is a pre-configured server which allows small and medium businesses to enjoy enterprise-class business telephony.

- An integrated, modular, state-of-the-art communication server that supports advanced TDM, SIP and IP business-class telephony
- Complete, user-friendly voice communications including embedded voicemail, personal assistant, automated attendant and integrated CTI server.
- Supports analog, digital, IP and mobile phones and PC soft phones
- Pre-announcement: on-hold music and messages
- Automated attendant: voice-activated management of incoming calls
- Basic PC telephony
- Universal Telephony Licenses
- Built-in PMS integration (Hospitality)
- Call-forwarding: automatic transfer of incoming calls
- Automatic call distribution: call-routing software

1. **Specs for IP-PBX:-** -The tenderer shall offer only products that adhere to the requirement specifications in this chapter; and shall indicate if it complies or not in the column by Y or N

	Compliance (Yes/No)	Remarks
1.1 The offered system should be the latest model of the vendor being supplied worldwide. Old models / releases will not be accepted.		
1.2 The system should be state of the art and deployable over both packet and circuit switching infrastructure.		
1.3 The system should provide advanced, embedded solutions without the need of any external hardware & software. It should have strong convergence solution for voice, Internet, e-mail applications including LAN services.		
1.4 The system should support traditional telephony, VOIP features and Mobile telephone features in one single system through pluggable interface boards.		
1.5 The system Moreover, should be fully extremely modular - meaning total adaptation easy migration, modular, scalable.		
1.6 The system should be using latest Operating system with native Internet protocols		
1.7 The system should be modular at every level; it should be rack mountable, stackable.		
1.8 The system should have universal slots for the interface boards.		
1.9 The system should provide the following features as part of the system without the need for any external hardware or software: Same features as a router with a firewall and Proxy cache server for internet access, An inbuilt DHCP server, An inbuilt CTI server		
1.10 The system should be based standard protocols like CSTA, TAPI, IP etc		
1.11 The system should provide a single management interface window for all application management. The management software should be based on web browser		
1.12 The System should be expandable to 300 extensions; the expansions should be achieved through addition of interface boards. There should not be any change of the CPU or the system software during expansions.		
a. EPBX System should provide. a) 200 IP extensions. b) 08 Analog extensions. c) 08 Analog Trunks. d) 01 ISDN PRI e) 64 VoIP Channels. f) Inbuilt Call billing Software. g) Inbuilt Voice mail 30 hours with 6 ports. h) 6 Party Conferencing. i) Automated attendant j) 200 no's PC Telephony.		

k) 5 years software assurance. l) Rack mountable system.		
1.14 System should offer Hot-Desking functionality.		
1.15 System should have very simple and same type of Licenses for all users (irrespective of user type whether Analog, Digital, IP, license Type should remain same)		
1.16 System should support built-in Contact center functionality just by enabling licenses (No need to have any external Hardware)		
1.17 System to support Intelligent call routing		
1.18 System to have BHCA value upto 1500		
1.19 System to support SSL V3 and HTTPS for secured sessions		
Voice features:		
2.1 The system should support the following voice terminals:		
<i>Analog telephones</i>		
<i>Digital telephones</i>		
<i>DECT Telephones</i>		
<i>High - end IP hard phones</i>		
<i>High- end IP soft phones</i>		
<i>Client / server based CTI solutions</i>		
2.3 It should support the following telephone features:		
<i>Music on hold (up to 2mn customizable)</i>		
<i>Personal assistant</i>		
<i>Voice mail</i>		
<i>Call forwarding</i>		
<i>Call transfer</i>		
<i>Call Back</i>		
<i>Park / Retrieve</i>		
<i>3-way conference</i>		
<i>6 Party meet me conference</i>		
Dial by name		
<i>Directory (3000 names)</i>		
<i>Company greeting</i>		
<i>Hunting group (cyclical, sequential, parallel)</i>		
<i>External loudspeaker broadcasting</i>		
<i>Pick up (group, individual, supervised line...)</i>		
<i>Manager / Secretary profile</i>		
<i>Automatic Route Selection (ARS)</i>		
2.5 The system should have in-skin voicemail expandable to 8 ports with 200 hrs of storage. The system should be offered with 2 ports, 60 minutes of recording.		
2.6 The voice mail should be Easy to use: User should be able to navigate through the voice mail features using voice prompts and the digital phones with soft keys should provide display for accessing the voice mailbox.		
2.7 Following features should be supported:		

<i>Direct access to any message whatever its rank, Record online function, Screening function.</i>		
<i>Notification by message LED</i>		
<i>Remote consultation to mailbox</i>		
<i>External notification (on mobile, phone pager, home set, ...)</i>		
<i>Personal options: customized greeting, protection by password, resend with comments, dial by name, reply function key, Answer only mode</i>		
<i>Unconditional / on busy / on no answer forward on voice mail with specific message.</i>		
2.8 The users should have Personal assistant function for all users		
2.9 Different options should be offered to the callers to reach different destinations like secretary, mobile phone, outside number, operator, voicemail.		
2.10 VOIP		
2.10.1 The system should support VOIP features without any additional cards. IP users should register directly on processor.		
2.10.2 It should support: IP Telephony, IP trunking SIP(H323 protocols and SIP protocols)		
2.10.4 QOS features should be supported. It should be able to tag the voice packets at the level 3 (IP) using TOS and DiffServ.		
2.10.5 The system should support the following compression algorithm for VOIP:		
<i>G711 when packets will stay in the LAN,</i>		
<i>G722, G723.A and G729.AB when packets will be sent over the WAN</i>		
2.11 System to offer Multi-level and Multi group Auto Attendant functionality.		
Networking:		
3.1 Branch office and remote ext IP solutions		
It should be possible to have Remote IP phones in the branches, managed by the call server in the headquarters. The IP phones at the remote site should have exactly the same features as they would at the headquarters.		
3.2 The system should be compliant with QSIG standards.		
3.3 The system should have networking features and it should allow to build the networks over the following physical interfaces:		
ISDN		
Leased lines, IP networks using H323 protocols,		
3.4 The system should allow building feature transparent networks. It should support the following features when networked:		
<i>Basic call</i>		
<i>Block dialing</i>		
<i>Call forwarding indication on Cent. OP</i>		
<i>Called party state indication on Display</i>		
<i>Caller's repertory</i>		
<i>CLIP/CLIR & COLP/COLR</i>		
<i>Diversion / Dynamic Routing</i>		
<i>DTMF transparency</i>		
<i>I/C call processing as Int. or Ext. calls</i>		

<i>Name identification Carried via UUS</i>		
<i>Optimized path in case of Forwarding</i>		
<i>Optimized path in case of Transfer</i>		
<i>Private / public call differentiation</i>		
<i>Sub/address</i>		
<i>Transfer</i>		
Data features:		
4.1 The LAN services offered by the system should have advanced features like: Powerful LAN: Switch 100 BT		
The users should be able to move from one place to other and also it should be possible to add new users easily. For this the system should support embedded DHCP server		
System to support NTP FOR Network wide synchronization		
Internet / UC features		
5.1 The Internet access should be possible through ISDN or ADSL lines or through Leased Lines through separate interface		
5.2 The system should support embedded Internet access solution. Following features should be supports		
<i>Shared internet access through ISDN or DSL</i>		
<i>Firewall, Proxy/cache server,</i>		
<i>VPN features for the remote workers to access the emails, or voice communication with the extensions of the system over internet.</i>		
5.3 The system should have standards based solution for Internet, email and VPN features. It should support the following industry standards:		
Internet standard protocols support		
E-mail protocol support (POP3, SMTP, MIME) with multi-vendor e-mail client support		
VPN standard protocol support for secure remote access (PAP/CHAP, PPTP, IPSec).		
5.4 The system should have following email features:		
It should offer a fully featured internal and external mail application.		
The system should offer features for combining with an existing e-mail solution from an ISP (Internet Service Provider) or from an existing e-mail server on the LAN.		
The system should offer features for optimizing communication costs		
Dial on demand function for internet access, as well as e-mail sending and retrieval which should be possible to set up at predefined intervals		
Cache mechanism for information access with no connection		
Time range definition, which should allow to control and limit Internet access usage during business hours in example.		
CTI features:		
6.1 The system should support high-end CTI (Computer Telephony Integration) features. It should allow users to access all the telephony features from their PC, irrespective of telephone type like Digital phones, Mobile DECT phone, Analog, without any physical phone.		
6.2 System to offer Screen Pop functionality		
6.3 System to have embedded Database and flexibility to connect with external CRM		
DECT features:		

7.1 The system should offer mobility features inside the office It should be based on DECT technology. The DECT telephones should offer following features apart from the standard features like big display, icons based display etc.		
<i>Built in loudspeaker,</i>		
<i>Built in vibrator,</i>		
<i>Headset connection</i>		
<i>Large graphical display</i>		
<i>Navigation key</i>		
<i>Pop –up menus</i>		
7.2 Wireless desktop digital telephones should be supported. It means standard digital telephones should be equipped with additional hardware, so that it can work with the DECT infrastructure and no cables should be used to connect the set with the system.		
System management and Call accounting application:		
Unified Features		
8.1 System to support and control Desktop Phone and Mobile Phone from PC		
8.2 System to have universal Phone directory		
8.3 Each User to have single identity irrespective of having multiple devices and Contact options		
8.4 System should be Cloud Connect ready and should support connectivity with cloud based applications		
8.5 System to offer Unified Directory		
8.6 System to offer features like Instant Messaging, Presence		
8.7 System to support Manager/Secretary feature		
8.8 System to have Multi-line functionality		
8.9 System to offer Click to Call functionality		
8.10 System to offer LDAP integration		
8.11 System to offer Yahoo and Microsoft Skype integration		
8.12 Comp ability with Mac, Android and Windows Handheld devices		
8.13 System to support Peer to Peer Video Calling functionality		
9. GUI based software should be offered for the system management and call accounting. The software should have the following features:		
<i>Windows user interface</i>		
<i>Access control by password</i>		
<i>Multi-language</i>		
<i>Traffic analysis (incoming & outgoing calls)</i>		
<i>Pre-defined reports</i>		
10. Cloud Services		
10.1 Cloud Collaboration services		
Multiple platforms/should be available on (PC,MAC,tablet smartphone optional,Web interface)		
User self-enrolment and profile management		

Search engine		
Contacts, contact groups, guests management		
Conversations management		
Chat (1 on 1, group chat)		
Presence information		
Voice and video calling, screen sharing - 1 on 1		
Call history		
Team collaboration (bubbles)		
File sharing, storage		
Microsoft Outlook plug-ins		
10.1 Cloud Hybrid services (telephony services)		
Business phone control		
Phone presence(IM)		
Basic call control (call, answer, release), call logging		
Advanced call control (up to 3 participants)		
Voicemail (notifications, call)		
Microsoft Skype for Business connector		
10.2 Cloud Management services		
Company administration and control		
Custom company logo, custom company banner		

2. Specs for IP-PHONE:-

1. IP Sets normal –47 Nos		
Technical specifications	Compliance(Yes/No)	Remarks
A) Display		
A.1) Visible area: atleast 2.4 in 128(W) x 64(H) pixels graphical black/white LCD display		
A.2) Viewing area:- atleast (WxH): 54.8x28.5 mm (2.15 x 1.12 in) LCD white backlit		
A.3) Contrast +/-		
B) Keys		
B.1) Volume control keys (+ and -)		
B.2) Pickup/off-hook/call/redial key Incoming call blinking LED: Back and front visibility		
B.3) Navigator: 4-way navigation		
B.4) OK, cancel keys		
B.5) Numeric to alpha keypad: To switch to alpha character and perform dial-by-name		
B.6) hold/transfer with LED		
B.7) Audio mode selection: Hands-free, loudspeaker, headset, or handset Message key		
B.8) Dial pad and call/redial/release key		
B.9) 6 Contextual keys around the screen		
C) Audio characteristics		

C.1) HD audio Wideband loudspeaker		
C.2) Full-duplex speakerphone		
C.3) VAD (Voice activity detection)/ DTX (discontinued transmission) included for all codec		
C.4) Group listening		
C.5) Acoustic echo cancellation		
C.6) Volume controls		
C.7) Mute control, Smart noise reduction		
C.8) Hearing aid compatible (HAC)		
C.9) Wideband comfort handset		
D) Power		
D.1) Power over Ethernet (IEEE 802.3af)		
D.2) Class 1 support (<3.84W), Power supply: Optional accessory		
E) Network and provisioning		
E.1) IP NOE and SIP v2 (RFC3261)		
E.2) DHCP and static IP manual or dynamic host configuration protocol (DHCP) network setup		
E.3) IEEE 802.1 AB/LLDP-MED client (automatic VLAN acquisition, PoE management, inventory information)		
E.4) QoS support (IEEE 802.1p/Q tagging [VLAN], Layer-3 TOS, DSCP, and QoS [VLAN], Layer-3 TOS, DSCP, and QoS tickets)		
F) Connectivity		
F.1) RJ-45 LAN: 10/100 /1000 Ethernet		
F.2) RJ-45 PC through 10/100/1000 Ethernet switch		
F.3) RJ-9 connector for corded handset		
F.4) Energy efficient Ethernet 802.3az support, One USB port (1.1/2.0) to connect audio equipment (headset, loudspeaker, hands free)		
G) Security		
G.1) Supports IPsec VPN		
G.2) Authentication: Basic or digest, 802.1x		
G.3) Denial of service (DoS) attack protection: Flooding		
G.4) ARP spoofing protection		
G.5) Transport: TLS 1.2/1.0 and SRTP		
H) Environmental conditions		
H.1) Operating temperature: -5°C to +45°C		
H.2) Relative humidity: 5% to 95%		
H.3) Storage/transportation temperature: -25°C/+70°C		
I) Service ability		
I.1) Syslog mode		
I.2) Port mirroring		
2. IP Sets higher end - 50 nos		
A) Display		
A.1) atleast 2.8 inch, 64 x 128, pixels black & white, white backlight, effective display area size 64 x 32 mm ²		
B) Keypad		
B.1) Navigator: 4-way navigation + OK + cancel		
B.2) Function keys: On/off hook, dial pad, mute with LED, volume keys ±, hands-free with LED, 2 personal keys/LED, redial, info and message with LED		

B.3) Programmable keys: - Up to 36 soft keys, 4 programmable keys with LED and paper label		
B.4) Magnetic alphabetical keyboard		
C) Connectivity		
C.1) RJ-45 LAN: Gigabit Ethernet 10/100/1000		
C.2) RJ-45 PC through 10/100/1000 Gigabit Ethernet switch		
C.3) RJ-9 connector for corded handset		
C.4) RJ-9 connector for alphanumeric keyboard		
C.5) 3.5 mm jack 4 pole headset port		
C.6) SATA connector for external ringer and audio active envelop indicator		
C.7) 2.1 x 5.5 mm DC power jack plug socket for external AC/DC power adapter		
C.8) SATA connector for add-on module connection		
C.9) USB A 2.5 W (5V, 500mA), upgradeable to support 4.5W (5V, 900mA)		
D) Power		
D.1) Power over Ethernet (IEEE 802.3af) - Class 1		
D.2) Power consumption (PoE) Idle - Active (w/o Add-on, w/o USB) - 1.5 W - 2 W		
D.3) Optional AC/DC power adapter: 100 V AC to 240 V AC/48 V DC		
E) Audio characteristics		
E.1) enhanced High Definition (eHD) Technology		
E.2) Wideband comfort handset		
E.3) Full-duplex speakerphone, acoustic echo cancellation		
E.4) OPUS Codec		
E.5) Wideband G722		
E.6) G711 (A-law and Mu-law)		
E.7) G729 AB, voice activity detection (VAD), comfort noise generation (CNG)		
F) Network and provisioning		
F.1) IP NOE and SIP v2 (RFC3261)		
F.2) DHCP and static IP - Manual or dynamic host configuration protocol (DHCP) network setup		
F.3) QoS support - IEEE 802.1p/Q tagging (VLAN), Layer 3 TOS, and DSCP - QoS tickets		
F.4) LLDP-MED		
F.5) IEEE 802.1 AB/LLDP-MED client (IPv4/ IPv6, automatic VLAN acquisition, PoE management, inventory information)		
F.6) Energy Efficient Ethernet 802.3 az support		
G) Security		
G.1) Authentication: Basic or digest, 802.1x - 802.1x Message Digest 5 (MD5)/TLS: For authentication, customer certificates management (with centralized deployment) - Denial of service (DoS) attack protection: Flooding - ARP spoofing protection		
G.2) Transport: TLS 1.2/1.0 and SRTP - Encryption and authentication of the signaling traffic; - Encryption of media traffic. IP Sec VPN support		
H) Environmental Conditions		
H.1) Temperature: -5°C to +45°C		
H.2) Relative humidity: 5% to 85%		
H.3) Storage Temperature: -25°C/+70°C		
H.4) IP Class: IP 20		
I) Service ability		
I.1) Syslog mode		
I.2) Port mirroring		

IP Sets Operator Console—2 no with 40 key DSS—2no		
A) Display		
A.1) atleast 3.5 inch color, 240 x 320 pixels, effective display area size 70.08 x 52.56 mm ² Ambient light sensor, back shell busy light indicator		
B) Keypad		
B.1) Navigator: 4-way navigation + OK + cancel		
B.2) Contextual keys: 2 x 3		
B.3) Function keys: On/off hook, dial pad, mute with LED, volume keys ±, hands-free with LED, 2 personal keys/LED, redial, info and message with LED		
B.4) Programmable keys: 36 soft keys , 4 programmable lighted keys, smart-add-on module		
B.5) Magnetic alphabetical keyboard		
C) Connectivity		
C.1) RJ-45 LAN: Gigabit Ethernet 10/100/1000		
C.2) RJ-45 PC through 10/100/1000 Gigabit Ethernet switch		
C.3) RJ-9 connector for corded handset		
C.4) RJ-9 connector for alphanumeric keyboard		
C.5) 3.5 mm jack 4 pole headset port		
C.6) SATA connector for external ringer and audio active envelop indicator		
C.7) 2.1 x 5.5 mm DC power jack plug socket for external AC/DC power adapter		
C.8) SATA connector for add-on module connection		
C.9) USB A 2.5 W (5V, 500mA), upgradeable to support 4.5W (5V, 900mA)		
C.10) USB C for future use		
D) Power		
D.1) Power over Ethernet (IEEE 802.3af) – Class 2		
D.2) Power consumption (PoE) Idle – Active (w/o Add-on, w/o USB) – 1.6 W – 2.2 W		
D.3) Optional AC/DC power adapter: 100 V AC to 240 V AC/48 V DC		
E) Audio characteristics		
E.1) enhanced High Definition (eHD) Technology		
E.2) Wideband comfort handset		
E.3) Full-duplex speakerphone, acoustic echo cancellation		
E.4) OPUS Codec or similar		
E.5) Wideband G722		
E.6) G711 (A-law and Mu-law)		
E.7) G729 AB, voice activity detection (VAD), comfort noise generation (CNG)		
F) Network and provisioning		
F.1) IP NOE and SIP v2 (RFC3261)		
F.2) DHCP and static IP – Manual or dynamic host configuration protocol (DHCP) network setup		
F.3) QoS support – IEEE 802.1p/Q tagging (VLAN), Layer 3 TOS, and DSCP – QoS tickets		
F.4) LLDP-MED		
F.5) IEEE 802.1 AB/LLDP-MED client (IPv4/ IPv6, automatic VLAN acquisition, PoE management, inventory information)		
F.6) Energy Efficient Ethernet 802.3 az support		
G) Security		

G.1) Authentication: Basic or digest, 802.1x → 802.1x Message Digest 5 (MD5)/TLS: For authentication, customer certificates management (with centralized deployment) → Denial of service (DoS) attack protection: Flooding → ARP spoofing protection		
G.2) Transport: TLS 1.2/1.0 and SRTP → Encryption and authentication of the signaling traffic; → Encryption of media traffic. IP Sec VPN support		
H) Environmental Conditions		
H.1) Temperature: -5°C to +45°C		
H.2) Relative humidity: 5% to 85%		
H.3) Storage Temperature: -25°C/+70°C		
H.4) IP Class: IP 20		
I) Service ability		
I.1) Syslog mode		
I.2) Port mirroring		
IP Sets very high end —1 no		
A) Display		
A.1) atleast 5 inch capacitive touch color, 480 x 800 pixels, effective display area size 108.00 x 64.80 mm ²		
A.2) Ambient light sensor, back shell busy light indicator		
A.3) LCD backlight Manual adjustment based on user-defined level, or auto-brightness mode based on ambient light and user defined level		
B) Keypad		
B.1) Navigator: → Touch screen with tool bar		
B.2) Contextual keys: 2 x 5		
B.3) Function keys: On/off hook, dial pad, mute with LED, volume keys ±, hands-free with LED, 2 personal keys/LED, redial, info and message with LED		
B.4) Programmable keys: 40 soft keys , 4 programmable lighted keys, smart-add-on module		
B.5) Magnetic alphabetical keyboard		
C) Connectivity		
C.1) RJ-45 LAN: Gigabit Ethernet 10/100/1000		
C.2) RJ-45 PC through 10/100/1000 Gigabit Ethernet switch		
C.3) RJ-9 connector for corded handset		
C.4) RJ-9 connector for alphanumeric keyboard		
C.5) 3.5 mm jack 4 pole headset port		
C.6) SATA connector for external ringer and audio active envelop indicator		
C.7) 2.1 x 5.5 mm DC power jack plug socket for external AC/DC power adapter		
C.8) SATA connector for add-on module connection		
C.9) USB A 2.5 W (5V, 500mA), upgradeable to support 4.5W (5V, 900mA)		
C.10) USB C for future use		
D) Power		
D.1) Power over Ethernet (IEEE 802.3af) → Class 2		
D.2) Power consumption (PoE) Idle – Active (w/o Add-on, w/o USB) → 2.1 W – 3.5 W		
D.3) Optional AC/DC power adapter: 100 V AC to 240 V AC/48 V DC		
E) Audio characteristics		
E.1) enhanced High Definition (eHD) Technology		
E.2) Wideband Bluetooth handset, Hearing Aid Compatible (HAC).		
E.3) Full-duplex speakerphone, acoustic echo cancellation		
E.4) OPUS Codec or similar		

E.5) Wideband G722		
E.6) G711 (A-law and Mu-law)		
E.7) G729 AB, voice activity detection (VAD), comfort noise generation (CNG)		
F) Network and provisioning		
F.1) IP NOE and SIP v2 (RFC3261)		
F.2) DHCP and static IP → Manual or dynamic host configuration protocol (DHCP) network setup		
F.3) QoS support → IEEE 802.1p/Q tagging (VLAN), Layer 3 TOS, and DSCP → QoS tickets		
F.4) LLDP-MED		
F.5) IEEE 802.1 AB/LLDP-MED client (IPv4/IPv6, automatic VLAN acquisition, PoE management, inventory information)		
F.6) Energy Efficient Ethernet 802.3 az support		
G) Security		
G.1) Authentication: Basic or digest, 802.1x → 802.1x Message Digest 5 (MD5)/TLS: For authentication, customer certificates management (with centralized deployment) → Denial of service (DoS) attack protection: Flooding → ARP spoofing protection		
G.2) Transport: TLS 1.2/1.0 and SRTP → Encryption and authentication of the signaling traffic; → Encryption of media traffic. IP Sec VPN support		
H) Environmental Conditions		
H.1) Temperature: -5°C to +45°C		
H.2) Relative humidity: 5% to 85%		
H.3) Storage Temperature: -25°C/+70°C		
H.4) IP Class: IP 20		
I) Service ability		
I.1) Syslog mode		
I.2) Port mirroring		

Installation:

- The entire system shall be installed as per manufacturer's recommendations & instructions.
- Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided.

Testing & Commissioning:

- Under supervision of manufacturer's representative entire system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications.
- Test the system as per recommendations & test report need to be submitted.
- In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance.

Drawings & Manuals:

If Required, Following drawings & manuals / information shall be submitted in at least THREE copies at appropriate stages & for handing over the system.

- Manufacturer's data for product, features, components & performance along with the offer.
- Operation & maintenance manual with list of recommended spares & replacement components.
- Detail operating instructions covering operations in normal & abnormal conditions.
- Details report about management IPs of all IP phone sets with their installed locations.

After Sales Service:

- Support Service should be provided by OEM/OEM representative for the complete OEM warranty period as per the support document.
- OEM Support document has to be submitted on OEM letter head.
- The Solution will be with 5 years warranty and support.

EOL/EOS: - The product should not EOL for next 3 years and EOS for next 5 Years.

Buy Back offer: The bidder should provide the buyback offer for the existing EPBX equipment. **Model: MATRIX ETERNITY GE - V10R11. (Bidder can pre-visit the site for check the status)**

Notice Inviting Quotation

Eligibility Criteria of bidder(s):

- The Bidder should be a Manufacturer/authorized distributors/dealers of the respective product solution OEM (Manufacturer Authorization Form).
- The bidder shall furnish a non – blacklisting certificate that the firm has not been blacklisted in the past by any government/Private institution. The bidder/supplier has to give an affidavit on non – judicial stamp paper of Rs.50/- that there is no vigilance/CBI case pending against the firm/supplier and the firm has not been blacklisted in the past by any Govt. or Private Organization.
- If the bidder is an ISO certified Company, then documentary proof should be enclosed.
- The Successful bidder/OEM should give 5 years of support for configuration, software related issues and hardware related issues as per agreed terms.
- OEM should provide a letter, on Equipment support and availability of spares and Certificate on Non-End of Life for 3 years and Non-End of Support for a period of 5 years.
- Penalty for delay in resolution - If selected bidder/OEM does not resolve any technical issues within the time frame from the response time, a penalty of 0.5% of total cost per day (maximum 7 days) will be charged and deducted from the amount payable to bidder. For delay beyond the stipulated period, entire PBG will be forfeited.
- The selected OEM for the supply of tendered item will have to provide free up –gradations of software (all update & upgrades) up to 5 years from the date of satisfactory installation.
- The bidder should have an annual revenue of INR 50 lakhs since last 3 financial years respectively.(documentary proof need to be attached)

- The bidder must have implemented at least one Govt/PSU, CCTV/IP project of minimum value of INR 30 lakhs (documents need to be attached).
- The bidder/OEM should be able to make presentation of their bids in front of an expert committee, if needed.
- Delivery should be made by successful bidder as FOR IASST Guwahati.
- **Sequence of documents to be provided / enclosed in each copy of the bid documents:**

1. The technical bid and price bid envelop should contain on the top advt. no, equipment name and these envelops should be put inside a single envelop which will also contain on the top advt. no, names, last date of submission of quotation and content (how many envelop) inside.
2. Balance sheet with auditor's report for last three years.
3. Latest Income Tax Clearance Certificates.
3. Copy of Certificate of Registration under GST.
4. Copy of PAN Card.
5. Certificate of authorization from OEM.
6. Sole Proprietary/sole manufacturer certificate for proprietary item.
7. Compliance sheet stating the deviation, if any, with reference to the terms and specifications of the equipment/ its accessories. (Annexure – III)
8. List of similar equipment supplied by the firm/OEM with addresses and phone numbers of customers with satisfactory completion certificate/ working certificates. Annexure – (V)
9. Name and address of registered office, Head Office and Regional Office of the company with name and phone numbers of key persons.
10. Self-declaration at Annexure –I (in non-judicial stamp paper of Rs.50/-)
11. Format of Manufacturer/Supplier/Distributor information at Annexure –II.
12. Technical Specification at Annexure – III
13. Acceptance of all clauses of bids specification duly signed page wise.
14. Documentary proof related to OEM and Bidder eligibility criteria.
15. Financial Bid at A Annexure –IV(in separate envelop).

(if bidder fails to submit any documents mentioned above; bidder will be disqualified from the tender process automatically).

The committee of experts and the user scientists will have the right to recommend /reject purchase of tendered item.

Conditions forming part of NIQ

- Price of the equipment to be quoted for FOR, IASST only.
- The two bid systems should be followed for this NIQ Under this system the bidder must submit their offer in two separate sealed envelopes marked clearly as Technical Bid and Commercial Bid on cover page of the envelop for each item quoted. Both the sealed envelope should be placed in a third larger envelop. The main envelope which will contain both the bids should be super scribed with NIQ enquiry no. and name of the equipment quoted for.
- The bidder shall be required to deposit Rs.40,000/as EMD with the Technical Bid, through Bank Draft/ Fixed Deposit Receipt/Bank Guarantee drawn in favour of '**The Director, IASST**' payable at Guwahati. All quotation submitted without requisite amount of earnest money shall be rejected and their financial bid shall not be opened. The EMD to the unsuccessful bidders will be returned within one month from the date of placing of final order(s). In case of bidder(s) whose offer is accepted, the EMD will be returned on submission of Performance Bank Guarantee. The IASST shall forfeit EMD, if the successful bidder fails to furnish the required Bank Guarantee in time. However, no interest/penalty shall be payable to bidders if the return of EMD is delayed for any reason. Companies registered under MSME are exempted from submission of EMD and Tender Fee subject to submission of valid Registration Certificate as applicable.
- The Technical Bids will be opened in presence of the bidders on the specified time and date. The bidder/their authorized agents who have responded to the quotation will be allowed to be present in the opening. The bidders are requested not to insert their quoted price in Technical Bid which will lead the quotation for summarily rejection.
- The Price Bids of only technically qualified bidders will be considered for further processing.
- The Successful bidder will have to submit Performance Bank Guarantee (PBG) equivalent to Rs.1, 00,000 drawn in favour of the Director, IASST payable at Guwahati within ten (10) days from the date of award of the contract. The submitted PBG should be valid for five years period.
- Bids would be rejected for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question.
- The bids received after the deadline for submission of bids prescribed by the IASST will be rejected and such bids shall be marked as late and not considered for further evaluation.
- The IASST may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with clause relating to Amendment of Bidding documents in which case all rights and

obligations of the IASST and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

- The original and all copies of the bid shall be typed and shall be signed by the bidder or a person or persons duly authorised to bind the bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid. Further, over-writings on documents, if any should be supported by signatures.
- The bidders may submit their duly sealed Bid by post or by hand at the address specified in the NIQ not later than the time and date specified therein. In the event of the specified date for the submission of bid being declared a holiday for the IASST, the bid will be received up to the appointed time on the next working day.
- The bidder should submit soft copies of both the bids in soft copy format through CD.
- Issuance of bid documents should not automatically be construed that the bidder is considered qualified.
- The IASST Authority has the right to reject any bids on technical grounds without assigning any reason thereof.
- IASST shall not be responsible for any delay, loss or non-receipt of bid documents sent by post.
- Prices shall be quoted in Indian Rupees for offers received for supply within India and in their currency as per the Financial Bid format in case of offers received for supply from foreign countries.
- The IASST may open a letter of Credit or Wire Transfer in cases where it so decides. Any variation in price from the importer and manufacturer be communicated well in advance.
- The imported equipment should be quoted by the authorized supplier/dealer. In this case, commitment of after sales service with the period applicable should be clearly mentioned.
- Compliance sheet should indicate in details of meeting up of specifications required. The bidder can mention the additional features that exist in quoted products, if any, separately.
- Payment shall be made after delivery, successful installation, commissioning, and submission of Bank Guarantee and on submission of installation and warranty certificate duly signed and stamped by the authorized representative of the user department. **No advance payment will be made in case of equipment supplied by indigenous supplier.** In case of imported equipment 100% payment will be made through letter of credit for equipment costing USD 20000.00(or equivalent foreign currency) or more with payment terms 80% after shipment and balance 20% after satisfactory installation and commissioning along with submission of Performance Bank Guarantee. For equipment costing below USD 20000.00 (or equivalent foreign currency) payment will be made after installation through Foreign Demand Draft or through wire transfer.
- All taxes, if applicable, should be quoted separately, otherwise it would be presumed that the quoted prices are inclusive of taxes.
- Prices quoted should be FOR, IASST, Guwahati inclusive of all charges required to make the equipment functional to the satisfaction of the Institute.

- In case price for imported goods are quoted in FOR, the IASST will provide customs duty exemption certificate, if the import is made in the name of IASST and the supplier should submit original Bill of Entry in the name of the Registrar, IASST.
- Delivery should be within specified days mentioned in Purchase Order. If the equipment/instruments are not delivered within the stipulated time, the supplier shall be liable to pay a penalty of 1% of the total order value for each delay of 10 days or part thereof, and the amount will be deducted from bill value.
- The suppliers will undertake warranty of equipment/instruments from the date of installation and shall have to mention the period of warranty in both the bids clearly.
- The quotations must be valid for a minimum period of 90 days (three months) from the date of opening of the financial bids. No change in prices and change in terms and conditions will be permitted.
- The supplier further warrants that the goods shall be free from defects arising from any act or omission of the supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- The bidder should indicate clearly in their technical bid about the pre-installation requirements. Subsequently, before the consignment lands in IASST, the bidder shall confirm that the pre-installation requirements are sufficient for installation of the equipment.
- Installation, testing, commissioning of the equipment should have to be carried out by Technical experts of the company/supplier up to the satisfaction of user department of IASST.
- Free training shall be imparted to faculty/technical staff for operation, maintenance and troubleshooting at the user/IT department of IASST.
- The equipment should be supplied with manuals containing technical drawings, complete in all respects, so as to operate the system without having any problem.
- The bidder may submit the proprietary certificate for the item(s), if applicable.
- In a bid, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same bid.
- If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same bid process.
- IASST reserves the right to purchase varying quantity of material, less or more.
- In the process of evaluation, comparison of bids, IASST reserves the right to reject any or all bids.
- In case replacement of a part becomes necessary during warranty period, the parts of the same make and same or better configurations as were originally there in the equipment shall be used. The supplier/vendor shall maintain details of the replacements and repairs carried out, if any, in any equipment/instrument in a separate document and produce the details as and when required by the user department of IASST. The cost of the parts will be borne by the supplier.
- All corrigenda will only be notified on the IASST website.

- The bidder should make arrangement of insurance of the equipment against all risks of loss or damage from the date of shipment till such time it is delivered at IASST site in case of Rupee/Foreign currency terms.
- The successful bidder should transport their products through the Institute's empaneled Carrying and Forwarding Agent from CIF/CIP destination.
- The Director, IASST shall be the final Authority for settlement of any dispute and his interpretation of any Clause/term/condition(s) of this document shall be final.
- If any dispute arises out of or in connection with the contract, or in respect of any defined legal relationship associated therewith or derived there from, will be settled under the jurisdiction of Court of Law of Guwahati.
- The Institute is not bound to accept the lowest bidder.
- Purchase terms and condition as per General Financial Rule (GFR) will be applicable for all the purchases to be made.



Authorise Signature of the firm

Name:

Designation:

ANNEXURE-I

Self-Declaration to be given by the bidder

NIQ Reference No. & Date:

Bidder's Name & Address:

Person to be contacted:

Designation:

Telephone No:

Fax No:

Email:

The Registrar,
Institute of Advanced Study in Science and Technology (IASST),
Vigyan Path, PaschimBoragaon, Guwahati – 781035.

We, the undersigned Bidder, having carefully read and examined in detail the Terms and Conditions, specifications and all bidding document in regard to the supply of equipments/instruments at Institute of Advanced Study in Science and Technology (IASST) and accept the same.

We also hereby declare that

- We have not been blacklisted/debarred by any Government/Undertaking.
- The rates quoted are not higher than the rates quoted for same item to any Government/Undertaking.
- The bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

For and on behalf of the firm

(Firms Name & Address)

(Signature of Authorised Signatory)

Name:

Date: -----

Designation:

Place: -----

Phone No:

Seal:

ANNEXURE – II
FORMAT FOR OTHER INFORMATION

(To be filled in by the bidder)

Cost of Bid: Rs. 1000/- -----

Cash receipt/Bank Draft No: -----

Date: -----

• Name of the firm: -----

• Address: -----

• Telephone/Mobile No: -----

• Fax Number: -----

• Email: -----

• TIN/VAT/GST No: -----

• Firm Registration No: -----

(If any)

• PAN: -----

(Attach photocopy)

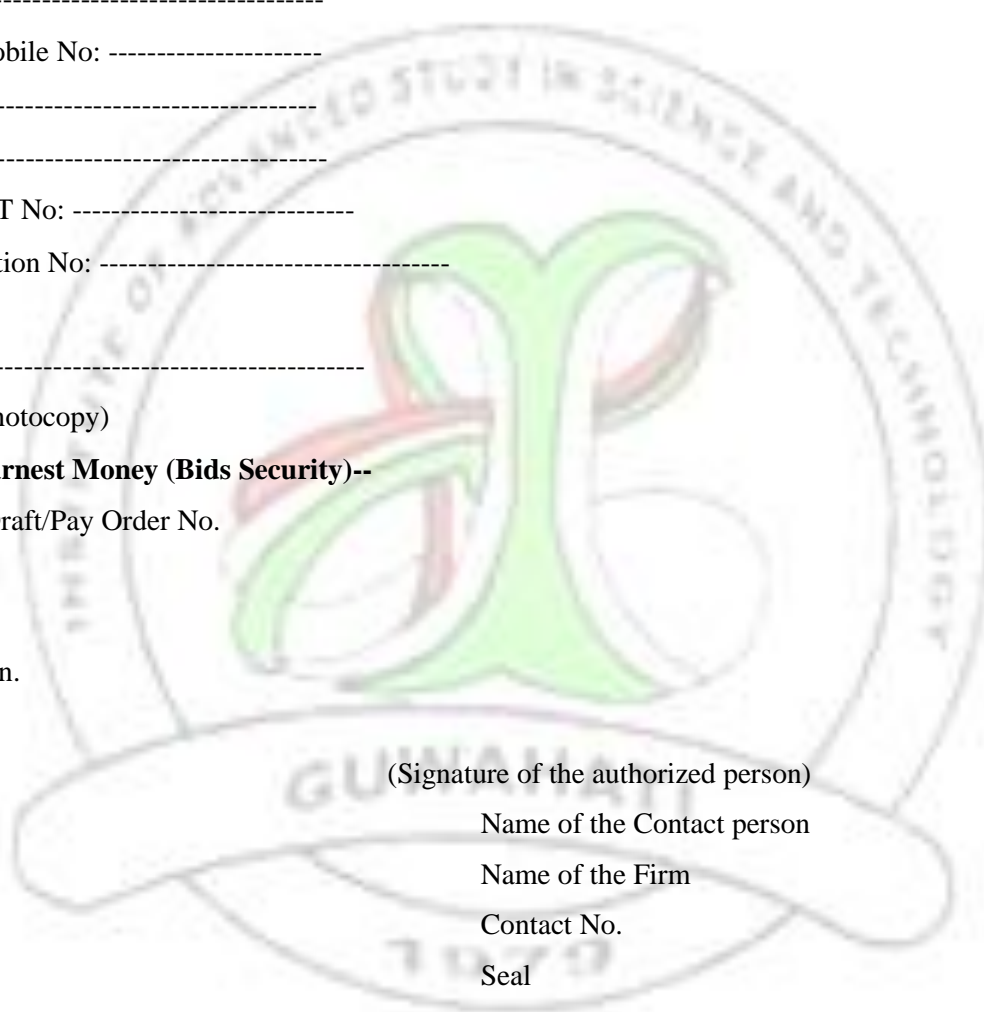
• **Details of Earnest Money (Bids Security)--**

a) Bank Draft/Pay Order No.

b) Date.

c) For Rs.

d) Drawn On.



Place -----

Date -----

(Signature of the authorized person)

Name of the Contact person

Name of the Firm

Contact No.

Seal

ANNEXURE – IV

FINANCIAL BID

Sl. No	Items	Amount in INR
	Basic Cost of the Equipments	
	Sales tax & other taxes	
	Excise duty, if any	
	Customs duty, if any	
	Packaging & forwarding charges, if any	
	Octroi Duty, if applicable,	
	Training cost, if any	
	Installation and Commissioning cost, if any	
	Any other charges, if any	
	Cost of the Buyback item	
	Grand Total (in figure & words) After reducing the cost of Buyback item	

(Signature of the authorized person)

Name of the Contact Person

Name of the Firm

Contact No

Annexure – V: Experience statement

Experience in the relevant areas with the clients (Attach separate statement)

Sl. No.	Name of the Customer Organization	Year of Implementation	Scope of Work	Value of the work (In INR Lakhs)	Present status of the project

ANNEXURE -VI

CONTRACT FORM

(To be filled by the successful bidder only)

THIS AGREEMENT is made on the ----- day of -----,20----- between the Registrar, Institute of Advanced Study in Science and Technology (IASST), Vigyan Path, Paschim Boragaon, Guwahati – 781035 (hereinafter called “the Purchaser”) of the one part and -----(Name of Supplier) of ----- (city and country of Supplier) (hereinafter called “the Supplier”) of the other part:

WHEREAS the Purchaser is desirous that certain equipment/instrument and after sales services viz, -----

----- (Brief Description of equipment/instrument and after sales services) and has accepted a bid by the

Supplier for the supply of those equipment/instrument and after sales services for the sum of ----- (Contract Price in Words and Figures) (hereinafter called ‘the Contract Price’).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. In consideration of the payments to be made by the IASST to the supplier as hereinafter mentioned, the Supplier hereby covenants with the IASST to provide the equipment/instrument and after sales services and to remedy defects therein in conformity with the provisions of the Contract in all respects.
3. The IASST hereby covenants to pay the Supplier in consideration of the supply of the equipment/instrument and after sales services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the equipment and after sales services which shall be supplied/ provided by the Supplier are as under:

SL.N O	BRIEF DESCRIPTION OF EQUIPMENT/INSTRUMENT AND AFTER SALES SERVICES	QUANTITY TO BE SUPPLIED	UNIT PRICE	TOTAL PRICE	DELIVERY TERMS
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\$\$\$\$\$end\$\$\$\$\$



