Notice Inviting Tender
Online tendering through CPPP (https://eprocure.gov.in/cppp)

Tender Details:

<table>
<thead>
<tr>
<th>Tender Enquiry No:</th>
<th>NEIGR/S&amp;P/OT/E -07/2020 -2021/Pt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender Description:</td>
<td>Processing of Video Conferencing PTZ Camera and Video Conferencing Server based Solutions (Software based MCU) for conducting online classes and practical examinations for the Institute</td>
</tr>
<tr>
<td>Bid Document Downloading Start Date:</td>
<td>14:00 hours of 30.05.2020</td>
</tr>
<tr>
<td>Pre-Bid Conference and Clarification Session:</td>
<td>16:00 hours of 30.05. 2020</td>
</tr>
<tr>
<td>Last Date and Time for Submission of Bid Document Online:</td>
<td>14:00 hours of 04.06. 2020</td>
</tr>
<tr>
<td>Date and Time of Opening of Techno -Commercial Bids:</td>
<td>14:30 hours of 05.06. 2020</td>
</tr>
<tr>
<td>Cost of Earnest Money Deposit (EMD):</td>
<td>₹30,000.00 (Rupees Thirty thousand only)</td>
</tr>
<tr>
<td>Tentative schedule after completion of Technical Commercial Evaluation subject to inputs from respective Committee /Authority:</td>
<td>60 days from the date of opening of Techno – Commercial Bid</td>
</tr>
<tr>
<td>Tentative schedule for awarding of contract including institutional requirement, justification of cost and on approval of the Competent Authority.</td>
<td>60 days from the date of opening of e- Price Bid /BOQ</td>
</tr>
</tbody>
</table>

Bidders /Tenderers can download the tender /bid document from Central Public Procurement Portal website at www.eprocure.gov.in Bidders /Tenderers are required to submit their bid online by uploading all the relevant documents through www.eprocure.gov.in. For further details regarding tender amendment /date extension, please visit website: www.eprocure.gov.in. Tender document can also be downloaded from the Institute's website at www.neigrihms.gov.in
Online tenders, in two-bid system, are invited by Director, NEIGRIHMS, Shillong for processing of stores/items for the Institute, as per enclosed specification and related terms and conditions.

1. Bidders/Tenderers would be required to register on the Central Public Procurement Portal at www.eprocure.gov.in, using a valid Digital Signature Certificate (DSC) and valid email address to be able to participate in the bidding process. On registration with the Portal they will be provided with a user id and password by the system through which they can submit their bids online.

2. Digital Signature Certificate (DSC) may be obtained from any authorized agencies registered with the Certifying Authority (CA), through National Informatics Center (NIC) in India.

3. Bidders/Tenderers can download the bid document from Central Public Procurement Portal website at www.eprocure.gov.in. Bidders/Tenderers are required to submit the bid online by scanning and uploading all the relevant documents through www.eprocure.gov.in.

4. Tender document can also be downloaded from the Institute’s website at www.neigrihms.gov.in. For further details regarding Amendment/Addendum/Extension please visit website: www.eprocure.gov.in and www.neigrihms.gov.in.

5. No tender fee is required for downloaded documents.

6. Earnest Money Deposit (EMD) of Rs 30,000.00 (Rupees Thirty thousand only) should be submitted online in the Account No: 302702000000027 of Bank of Baroda, Mawdiangdiang Branch (IFSC Code: BARBOMAWDIA) and a copy/proof should be scanned and submitted online along with the techno-commercial bid.

7. The firms registered with DGS&D/SSI/NSIC and any approved sources of Central/State Government, are not exempted from furnishing Earnest Money in so far as this institute is concerned.

8. In the event of the date being declared as a closed holiday for purchaser’s office, the date for opening of bid online will be the following working day at the appointed time.

9. Bidders/Tenderers need to scan and upload the required documents like Goods and Service Tax (GST) registration, PAN Number/Card, valid document regarding the existence and registration of the firm along with the techno-commercial bid.

10. The technical bids will be opened online by a committee of members duly constituted for the purpose at the time and date as specified in the tender document. All statements, documents, certificates, proof of EMD uploaded by the bidders will be verified and downloaded for technical evaluation and the result of technical bid evaluation will be displayed on www.eprocure.gov.in which can be seen by all bidders who participated in the tender.

11. The bidders should download the BqO.xls (Bill of Quantities) and filled in the blank spaces provided for mentioning the name of bidder and rates. Bidders need not modify any other text or background shown in the BOQ template or replace it with any other copy of same BOQ in .xls format. NEIGRIHMS/Central Public Procurement Portal (www.eprocure.gov.in) will accept the BOQ template only and hence the rate should not be quoted in any other place except BOQ template.

12. The Financial bid (price bid) i.e. Bill of Quantity (BOQ) of only technically qualified bidders will be opened online by a committee of members and the result will be displayed on the www.eprocure.gov.in which can be seen by all bidders who participated in the tender.

13. No work will be allotted to Non-Tribal bidder, contractors, Suppliers, stockists, bonded warehouse, private carriage contractors, cooperative societies etc except under a valid trading license issued by the Khasi Hills Autonomous District Council, Shillong.

14. Manufacturing organizations should preferably have Quality assurance certification like WHO-GMP/ISI/BIS/DH&H/BIS: IS 2190:2010 /IS 2878 IS 8149 /IS 15683 /or equivalent certification issued by the authorized organization, attested copies of the same are to be submitted with the tender. Firms quoting on behalf of their manufacturer should also attach said certificate of their manufacturer to select reputed firms and quality products failing which their offers may be summarily rejected.

15. The tenderer must be a manufacturer. In case the manufacturer does not quote directly, they may authorise their authorized agent as per proforma of Manufacturer authorization form as given in the tender enquiry document to quote and enter into a contractual obligation.

16. The Manufacturer should have supplied and installed in last three years before the date of Tender Opening, at least 100% of the quoted quantity of the similar equipment meeting major specification parameters which is functioning satisfactorily. The foreign Manufacturer satisfying the above criteria should also have supplied and installed in last three years before the date of Tender Opening, at least 100% of quoted quantity of similar model which is functioning satisfactorily any where outside the country of manufacture.

17. Certificates of performance statement, work experience & completion certificate of similar works/services should be submitted along with the Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening.

18. The supplier warrants comprehensively that the stores/items supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the...
contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and/or the material used are as per the purchaser's specifications) and this warranty shall remain valid for two years (2) after the goods or any portion thereof as the case may be, have been delivered to the final destination.

19. Stores will be accepted subject to the condition of verification and inspection by the competent authority/inspecting agency and the offer should be valid at least one year from the date of opening of the price bid or award of contract whichever is later.

20. Supply, installation and commissioning should be within 15.06.2020 or else deduction on gross bill @ 0.5% per week or part thereof will be made as liquidated damages/delay in supply, subject to maximum of 10% of the value of the delayed supplies.

21. The supplier shall furnish performance security to the purchaser at 5% of the contract value, valid up to sixty days after the date of completion of all contractual obligations by the supplier, including the warranty obligations.

22. Insurance during transit to be borne by the vendor/supplier/contractor inclusive of handling within the Institutes premises, till the completion of final Inspection and acceptance.

23. Installation, demonstration, operational techniques and associated services to be provided by the supplier/vendor/contractor within the cost indicated.

24. The firm has to give a self declaration that the firm is not supplying the same item at lower rates quoted in this tender to any Government/Private organization or any other institution during past one year, as per “FALL CLAUSE” adhered by DGS & D and other Government agencies.

25. The firm has to give a self declaration that there is no vigilance/CBI/FEMA case pending against the firm/supplier.

26. At any time prior to the date of submission of bid, Director, NEIGRIHMS may, for any reason, whether at his own initiatives or in response to a clarification from a prospective bidder, modify the bidding documents by an amendment.

27. The tendered rates and the validity of bids shall be for a minimum period of one 120 days from the date, as the tender are finalized/awarded.

28. Settlement of disputes – If there is any dispute or differences, the same may be referred to Director, NEIGRIHMS. Director, NEIGRIHMS or his authorized representative shall be the final authority in all disputes and decision taken by the authority will be binding on all concerned. Thereafter, the jurisdiction in respect of settlement of disputes in Stores & Civil contracts shall be as per the Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts (Amendment) Ordinance 2018, wherein the provision for pre-institution mediation, has been made mandatory in respective cases by the parties to the disputes. The mediation shall be under the authorities constituted under Legal Service Authority Act, 1987.

Sd/-
Stores & Procurement Officer,
For and on behalf of Director, NEIGRIHMS, Shillong
Terms and Conditions of Tenders

Submission of Tenders:

1. Online Submission of Tenders
   - The tenderers are to submit the tenders online (Techno –Commercial bid and Finance bid) at www.eprocure.gov.in
   - The tenderers must ensure that they submit their tenders not later than the closing time and date specified.
   - The participating bidders in the tender should register themselves free of cost on e-procurement platform in the website www.eprocure.gov.in
   - Bidders can log-in to e-procurement platform in secure mode only by signing with the Digital Certificates.
   - The bidders who are desirous of participating in e-procurement shall submit their technical bids, price bid as per the standard formats available.
   - The bidders should scan and upload the respective documents in Technical Documentation as per the check list.
   - The rates should be quoted as per the BOQ downloaded for the particular tender.
   - **Manual bid shall not be accepted in any circumstance.**

2. TENDER SHOULD INVARIBLY BE SUBMITTED IN TWO BID SYSTEM CONTAINING TWO PARTS AS DETAILED BELOW:
   
   PART-I: - TECHNO-COMMERCIAL BID
   PART-II: - BOQ/FINANCIAL BID

3. The tenderers should give rates, showing taxes, if any, and levies, packing forwarding and insurance charges separately giving full breakup details. Vendors/bidder may note that the Institute has obtained CDE certificate pertaining to Customs duty and therefore price consideration should be offered accordingly. Tender not confirming to these requirements shall be rejected and no correspondence will be entertained whatsoever.

4. The tendered rates and the validity of bids shall be for a minimum period of 120 days from the date, as the tender are finalized/awarded, till the finalization of next tender by the Institute, whichever is earlier.

5. Deleted

6. In case of non supply of material within the due date i.e. with the date of delivery, the Director, NEIGRiHMS, Shillong will have the right to impose penalty as deemed fit to resort to risk purchase in full or part thereof at his/her discretion, his/her decision shall be final and binding.

7. Custom/Excise Duty & other such levy imposed by the Govt. of India from time to time will be authorized extra on demand with adequate proof thereof.

8. The Director, NEIGRiHMS, Shillong shall be the final authority to reject full or any part of the supply which is not confirming to the specification and other terms and conditions.

9. No payment shall be made for rejected material. The tenderer would remove rejected items within two weeks of the date of rejection at their own cost and replace immediately. In case these are not removed these will be auctioned at the risk and responsibility of the suppliers without any further notice.

10. Tenderers submitting tenders would be considered to have considered and accepted all the terms and conditions. No inquiries verbal or written shall be entertained in respect of Acceptance or rejection of the tender.

11. The quantity shown in the schedules can be increased or decreased to any extent depending upon the actual requirement.

12. Any action on the part of the tender to influence anybody in the said Institute will be taken as an offence and the tender submitted by the firm will subsequently be rejected.

13. The price charged for the Stores/Equipment’s, under the reference, by the supplier shall in no even exceed the lowest price at which the supplier the Stores/Equipment’s of same identical description to any other person/organization/ Institution during the currency of the contract as per fall clause adhered by D.G.S&D. If at any time, during the said period the supplier reduced the said prices of such/Stores/Equipment or sales such stores to any other person/organization/ Govt. Institution/ Co. Operative Stores at price lower than the quoted price, he shall forthwith notify such reduction or sale to the Director, NEIGRiHMS, Shillong and the price payable for the Stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced and should attach an undertaking on non-judicial stamp paper of Rs 10/- duly attested on acceptance of the offer, before placement of order.

14. The supplier shall furnish the following certificate to the Accounts Officer along with each bill for payment for
supplies made against in Rate Contract Tender.

“I/We certify that the Stores of description identical to the Stores supplied to the government under the contract against Tender herein have not been offered/sold by me/us to any other person/organization/institution up to date of bill/the date of completion of suppliers against all supply orders placed during the currency of the tender/rate contract at the price lower than the Institute under contract /against tender”.

15. Deleted

17. Any failing of omission to carry out the provision of the contract by the supplier shall not give rise to any claim by any party, one against the other, if such failure of omission or arises from an act of God, which shall include all acts of natural calamities such as fire, flood, earthquake hurricane or any pestilence or from civil strikes, compliance with any stature and/or regulation of the Government, lookouts and strikes, riots, embargoes or from any political or other reasons beyond the suppliers control including war (whether declared or not) civil war or state or insurrection, provided that notice or the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to force major conditions.

18. The tenderer/ bidder shall furnish a non-blacklisting certificate that the firm has not been blacklisted in the past by any government/ Private institution. The tenderer/ bidder has to give a self declaration 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.

19. The tenderer are required to quote their rates in the BOQ only.

20. Tender by Tele-fax/telegram/fax/e-mail/hard copy will not be accepted.

21. Selection will be made purely on compliance of specification, sample, make quality and on the basis of lowest price offered.

29. If the tenderer gives a false statement on any of the above information, the firm/supplier will not be considered and their quotation/tender shall be deemed to be rejected and the security deposited will stand forfeited.

30. In case the vendor appoints manpower / labour in excess of or equal to the number as specified by law, the agency should comply with all statutory enactments including Contract Labour Regulation and Abolition Act, 1970; Minimum Wages Act where applicable; Payment of wages Act, where applicable; ESI Act, 1948, where applicable; EPF Act, 1952, where applicable; etc. All existing statutory liabilities relating to engagement of personnel related to labour laws shall be sole responsibility of the agency.

31. It will be the prerogative of the Institute to place the supply order for the whole lot/item or in piecemeal basis depending upon the requirement of the Institute. The Institute shall have the right to reject any tender without assigning any reason thereof. No correspondence will be entertained in this regard. Only one best quality item (according to our specification) should be quoted against the item.

32. Handwritten quotations shall be accepted at the bidder’s risk. In case of any discrepancy in the figures, the rate mentioned in words will only be considered.

33. Payment of the approved vendor for supply of items at NEIGRIHMS shall be made through cheque or electronic clearing system. In case of cheque, the same will be dispatched registered post and postal charges shall be deducted from their bills.

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**Payment for Annual Comprehensive Maintenance Contract Charges:**

The consignee will enter into CMC with the supplier at the rates as stipulated in the contract. The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the consignee on receipt of bank guarantee for an amount equivalent to 10 % of the CMC value as per contract valid till 2 months after expiry of CMC period.

The supplier shall not claim any interest on payments under the contract.

Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.

The payment shall be made in the currency / currencies authorised in the contract.

The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

**ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT FOR A PERIOD OF THREE YEARS AFTER WARRANTY PERIOD**

<table>
<thead>
<tr>
<th>Schedule No.</th>
<th>Brief Description of Goods</th>
<th>Quantity (Nos.)</th>
<th>Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*</th>
<th>Total Annual Comprehensive Maintenance Contract Cost for 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>1st</td>
<td>2nd</td>
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<tr>
<td>a</td>
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<td>c</td>
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</tbody>
</table>

**NOTE:**
1. The bidder should offer the cost of Comprehensive Maintenance Cost (CMC) for 3 years in the BOQ (Price bid).
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/service/operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years as per format of BOQ.
3. The cost of CMC quoted should be **exclusive** of applicable tax or as indicated.
4. Cost of CMC will be added for Ranking/Evaluation purpose.
5. The uptime warranty will be 98% on 24 (hrs) X 7 (days) X 365 (days) basis or as stated in Technical Specification of the TE document.
6. All software updates should be provided free of cost during CMC period.
7. The stipulations in Technical Specification will supersede above provisions.
8. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.
9. During maintenance & warranty period the bidder's technical representative, shall attend to the machine/equipment within 48 hours and ensure uptime on immediate basis and shall ensure presence at NEIGRIHMS for 24 hours, after uptime is ensured.

Place: ___________________________  
Signature of Tenderer: ___________________________  
Date: ___________________________  
Name: ___________________________  
Business address: ___________________________  
Seal of the Tenderer: ___________________________
TENDER FORM

Date __________

To

____________________________________

____________________________________

(Complete address of the purchaser)

Ref. Your TE document No. __________ dated __________

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. ____________, dated ________ (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver ___________ (Description of goods and services) in conformity with your above referred document for the sum indicated in the price bid, attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – “Special Conditions of Contract”, for due performance of the contract.

We agree to keep our tender valid for acceptance as required in the GIT clause 20, read with modification, if any in Section - III – “Special Instructions to Tenderers” or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/corrigendum if any.

(Signature with date)

____________________________________

(Name and designation)

Duly authorised to sign tender for and on behalf of

____________________________________
Check List of Certificates/Documents required to be submitted along with the Techno Commercial Bid:

The tenderer are advised to submit the following certificates under the category of “Vital documents” invariably along-with Techno-Commercial Bid. If these documents are not submitted/ conditions not met, the quotation shall be summarily rejected and no further correspondence, in this regard, shall be entertained.

- Violation of two-bid system
- Earnest Money Deposit (EMD)
- GST registration certificate, PAN card, etc and trading license on award of contract
- Experience Certificate, Manufacturer’s Authorisation
- Fall clause declaration
- Performance Statement, Turnover /Financial Statement
- Non-Black Listing /CBI declaration /Fall Clause
- Detailed brochure showing specification details for technical evaluation by the technical committee
### Technical Specifications:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Specification</th>
<th>Manufacturer /Make</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Video Conferencing PTZ Camera</td>
<td></td>
<td>1 Set</td>
</tr>
<tr>
<td></td>
<td><em>(detailed specification as per Annexure: A)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Video Conferencing Server based Solutions (Software based MCU)</td>
<td></td>
<td>1 Set</td>
</tr>
<tr>
<td></td>
<td><em>(detailed specification as per Annexure: B)</em></td>
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<td></td>
</tr>
</tbody>
</table>

**Note:**
- System /Software with 2 years warranty and thereafter 3 years CMC and with complete turnkey works will be taken for the purpose of price evaluation.
- The validity of the user and participants should be for a period of 5 years.
- All items in the BOQ should be quoted compulsorily.
Video Conferencing PTZ Camera

CAMERA

- Smooth motorized pan, tilt and zoom controlled from remote or console
- 260° pan
- 130° tilt
- 10x lossless HD zoom
- 90° field of view
- Full HD 1080p 30fps
- H.264 UVC 1.5 with Scalable Video Coding (SVC)
- Autofocus
- 5 camera presets
- Far-end control (PTZ) of ConferenceCam product (with supported services)
- Kensington security slot
- Video mute/unmute LED indicator
- Standard tripod thread

REMOTE CONTROL

- Camera, speakerphone, and call control
- 5 camera presets
- Docks on speakerphone
- IR 8.5 m/28-foot range
- CR2032 battery (included)

SPEAKERPHONE

- Full-duplex performance
- Acoustic echo cancellation
- Noise reduction technology
- Ultra-wideband audio
- Pairs with mobile devices via Bluetooth and NFC
- LCD for caller ID, call duration and other functional response
- LEDs for speakerphone streaming, mute, hold, and Bluetooth
- Tactile buttons for call answer/end, volume and mute, Bluetooth, and camera controls
- 5 camera presets for pan, tilt, and zoom settings
- Kensington security slot

MICROPHONES

- Pickup range: 6m / 20 ft
- Pickup range with expansion mics: 8.5 m / 28 ft
- Four omnidirectional, beamforming microphones
- Frequency response: 100Hz – 11KHz
- Sensitivity: -28dBi +/-3dB
- Distortion: <5% from 200Hz

HUB / CABLES / POWER

- Central Hub connects and powers all components
- Under-table mounting adhesive included
- One cable to camera: 5 m / 16 ft
- One cable to speakerphone: 5 m / 16 ft
- Extended cables available (10 m and 15 m)
- One USB cable for connection to PC/Mac (2 m / 6.6 ft)
- AC Power adapter with regional plugs
- Power cable (3 m / 9.8 ft)

MOUNT

- Dual-purpose bracket works for both wall mounting and tabletop elevation

COMPATIBILITY AND INTEGRATIONS

- Plug-and-play USB connectivity
- Works with most any video conferencing application or meetings service
- Skype for Business certified
- Microsoft Cortana® certified
- Cisco Jabber® and WebEx compatible
- Enhanced integration with Logitech Collaboration Program (LCP) members, including BlueJeans, Broadsoft, LifeSize Cloud, Vidyo, and Zoom

TRIPOD

- 5 ft tripod stand
General Specification of Video Conferencing Server based Solution (Software based MCU)

A Video Conferencing and Unified Communications Server solution designed to enable video collaboration among groups for communicating securely with any size or within any network complexity.

The said solution should have the following key features available from day 1:

<table>
<thead>
<tr>
<th>Sr No.</th>
<th>Video Conferencing Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Video Conferencing Core Architecture</strong></td>
</tr>
<tr>
<td>1.1</td>
<td>It should be designed to be used in private networks (MPLS/LAN/VPN) as well as over Internet equally efficiently.</td>
</tr>
<tr>
<td>1.2</td>
<td>Internet connection should not be mandatory to use video conferencing within private network. To ensure highest level of fidelity and security within private networks from day 1, installation and operationalizing of solution should not require Internet.</td>
</tr>
<tr>
<td>1.3</td>
<td>Solution should be software based and should support deployment on existing onv premises dedicated physical and virtualized infrastructures (vCPU) equally well in performance terms.</td>
</tr>
<tr>
<td>1.4</td>
<td>Core algorithmic technology to ensure automatically the best possible video quality for every endpoint depending on its bandwidth and computing/device capacity (SVC).</td>
</tr>
<tr>
<td>1.5</td>
<td>Video Communications through the Server and clients should be secured with minimum 128 bit or higher encryption. Higher encryption will be preferable.</td>
</tr>
<tr>
<td>1.6</td>
<td>Server should use encryption in WebRTC mode as well</td>
</tr>
<tr>
<td>2</td>
<td><strong>Video Conferencing Solution Capabilities</strong></td>
</tr>
<tr>
<td>2.1</td>
<td>UltraHD 4K (2160p) point to point calls must be available from Day 1.</td>
</tr>
<tr>
<td>2.2</td>
<td>Solution should support minimum 12 live concurrent group conferences with up to 125 live participants across conferences, out of which minimum 25 must be concurrent loggedin users. Solution should support unlimited rooms &amp; meetings creation by users.</td>
</tr>
<tr>
<td>2.3</td>
<td>Not less than 36 speaker-cum-participant videos simultaneously displayed on screen, i.e. in continuous presence (CP) mode, on every one’s screen in Multipoint Group Conference from Day 1.</td>
</tr>
<tr>
<td>2.4</td>
<td>Single Conference should support up to 100 participants in 2-way conferencing. By rotation, any participant should be able to be brought on main screen for everyone else to view. Rotation-Mode Conference must support up to 36 speaker videos simultaneously.</td>
</tr>
<tr>
<td>2.5</td>
<td>Video Lecture type conference of upto 36 participants where one person’s video and audio is seen by everyone and all participants can be seen by lecturer but the participants should not see each other.</td>
</tr>
<tr>
<td>2.6</td>
<td>Participants should be able to join a conference using a Meeting ID without loggingin via a secure link.</td>
</tr>
<tr>
<td>2.7</td>
<td>Conference link must work in Mobile Browser of Android devices and iOS devices from Day1.</td>
</tr>
<tr>
<td>2.8</td>
<td>There should be a facility to mute Participant who has joined</td>
</tr>
<tr>
<td>3</td>
<td><strong>Video Conferencing Client Side Capabilities</strong></td>
</tr>
<tr>
<td>3.1</td>
<td>BYOD: Should offer client apps compatible with all major Operating Systems prevailing. Solution should have client applications for all platforms namely Windows, Mac OS X, Linux, iOS, Android, Android TV.</td>
</tr>
<tr>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>It is important that app for Linux distributions should also be available from day 1.</td>
</tr>
<tr>
<td>3.3</td>
<td>User can download the client from a server and login to the VC system. Client accounts should not be tied to specific devices, they should be login id-password based so that it can be used from any device.</td>
</tr>
<tr>
<td>3.4</td>
<td>Client should support Voice Activated Layout Switching from day 1 &amp; should support Layout Control from within App.</td>
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<tr>
<td>3.5</td>
<td>Client app should have built-in echo cancellation, noise suppression and AGC features in built.</td>
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<tr>
<td>3.6</td>
<td>It should support Htsp WebRTC connections in same conference as desktop &amp; mobile apps.</td>
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<tr>
<td>3.7</td>
<td>Browser based conference should have an option for Guest to join in without pre-requisite of login id and password, just by using conference ID, guest should be able to join with audio and video.</td>
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<tr>
<td>3.8</td>
<td>It should have server-side video conference recording as well as client side video conferencing recording with the ability to switch it on and off.</td>
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<tr>
<td>3.9</td>
<td>Solution should have Client side Scheduling as well as Server Side Scheduling of Conferences from Day 1.</td>
</tr>
<tr>
<td>3.10</td>
<td>Client apps should be able to control/cap the bandwidth usage and should be configurable in terms of which Server IP to connect to.</td>
</tr>
<tr>
<td>4</td>
<td>Video Conference Collaborative Tools</td>
</tr>
<tr>
<td>4.1</td>
<td>Dual Video i.e. Person’s Video along with Screen Sharing and Application Sharing must be supported from Day 1.</td>
</tr>
<tr>
<td>4.2</td>
<td>Group File transfer between client applications must be supported from Day 1.</td>
</tr>
<tr>
<td>4.3</td>
<td>Personal and group instant messaging must be available. All the messages should be saved in internal database which should be searchable by Admin.</td>
</tr>
<tr>
<td>4.4</td>
<td>Offline chat must be supported from Day 1</td>
</tr>
<tr>
<td>4.5</td>
<td>All chats must be saved in a Database from Day 1</td>
</tr>
<tr>
<td>4.6</td>
<td>Address book with user groups and participants list must be available to all or selected user/group.</td>
</tr>
<tr>
<td>4.8</td>
<td>Solution should provide access to user’s directory, search and calls history.</td>
</tr>
<tr>
<td>4.9</td>
<td>From Day 1 Desktop sharing and remote control to be present.</td>
</tr>
<tr>
<td>4.10</td>
<td>Slide shows must be supported</td>
</tr>
<tr>
<td>4.11</td>
<td>Content and Application sharing must be supported</td>
</tr>
<tr>
<td>5</td>
<td>Video Conferencing Scalability</td>
</tr>
<tr>
<td>5.1</td>
<td>The Solution shall support unlimited deployment of Desktop clients /Mobile Clients, and will support concurrent participation irrespective of number of deployments.</td>
</tr>
<tr>
<td>5.2</td>
<td>There should be no minimum as to the number of additional licences required to be procured for enhancing the number of online users in the system.</td>
</tr>
</tbody>
</table>
5.3 Validity of the user and participant’s price should be mention (whether Individually or Bundled).

6 Video Conferencing Interoperability & Integration

6.1 It should have built-in SIP Multigateway for 3rd-party video conferencing endpoints, PBXs and VoIP.

6.2 It should have built-in H323 Multigateway for 3rd-party video conferencing endpoints.

6.3 Must support additional video stream from H.323 endpoints via H.239 protocol. Must support content transmission to H.323 devices via H.239 protocol. Moderators must be able to turn on/off audio and video streams from SIP/H.323 devices for all participants in group conferences.

6.4 Solution should allow permanent registration of 3rd party solutions through built SIP Gateway/H323 Gateway from day 1.

6.5 API support & detailed API documentation as well as easy integration with third-party websites should be available from Day 1.

7 Management of Server-based Video Conferencing Solution

7.1 Server should be manageable remotely via web browser.

7.2 For security of installation, access to admin console can be enabled only from select Ips or localhost.

7.3 It should have customizable user groups and roles from admin side.

7.4 Moderators & Operator rights for user groups: Members of the group with operator rights automatically become moderators when entering any conference on the server. Several moderators can be assigned while creating a group conference in control panel.

7.5 Admin panel should feature creation of group conferences, their scheduling with as well as without specific time limits and should also allow automated invitations to participants via email.

7.6 From Server admin, it should be possible to cap Client side bandwidth usage both by Groups as well as by individual registered account level.

7.7 Admin Panel must be provided to manage tasks such as Server registration, start, stop and state monitoring.

7.8 Server log viewing both simple and advanced/detailed logging should be featured.

7.9 Registration of new users, activation and deactivation must be available.

7.10 Group conferencing of different modes must be available to create permanent or semi-permanent Rooms.

8 Video Conferencing Technical Parameters

8.1 Audio Codecs: The solution shall be based on codecs such as G7xx, or others superior audio codec proven for their quality in audio communication at lower bandwidth.

8.2 Video Codecs: The solution shall use a video codec that supports native VP8 SVC & H.264 AVC, H.263 or better Video Codec for proven video quality at lower bandwidth. It shall also support mandatorily ITU Standard based protocols like H.264 in order to ensure smooth interoperability between different systems.

8.4 Content Resolution: Content sharing: identical to source up to 1080p or better. Slide shows up to 1280x1024 must be supported.

8.5 Protocol(s) Supported: WebRTC, SIP, H.323, BFCP, RTSP at the minimum.

8.6 Should support 128 bit or higher encryption TLS. Via WebRTC: SRTP DTLS at the minimum.

8.7 Bandwidth Requirement: 2160p30 @ 8192kbps, 1080p30 @ 2048kbps, 720p60 @ 1536kbps, 720p30 @ 1024kbps, 480p30 @ 512kbps, 360p30 @ 128kbps, 180p30 @ 48kbps or better.

8.8 The system should support upto 4 Mbps in a Point to Point call and Multipoint Conferences.

8.9 To minimize the delay and provide uniform video-audio stream, relevant advanced technologies namely adaptive jitter buffer, dynamic bit rate adjustment should be used.

8.10 Video streams resolution, compression ratio and frame rate are chosen dynamically and independently for every participant in a conference based on the selected layout, bandwidth, connection quality, endpoint's performance and its hardware capabilities.

8.11 No known vulnerability should exist in the system being provided

8.12 All updates/patches as required in firmware/software/plugins/ third party/ additional software framework should be ensured by the seller that they are from the genuine and authorised source to avoid security breach/vulnerability issue.

9 Terms and Conditions

9.1 Training and Handholding of Software should be provided by the seller via Online or Offline mode

9.2 Installation and Deployment Support via Online or Offline mode

9.3 All Software Updates for full 1st Year should be provided without any additional cost. However patches for breach/vulnerability issue should be provided without any restriction.

9.4 Extended Tech Support for full 1st Year (Phone, Email, Remote)

9.5 Basic Tech Support for 4 years (Email, Raise Ticket)