Request for Proposal (RFP) for

Selection of Managed System Integrator for Network Upgradation,
Video Conferencing Setup & Desktop Computers
for GBPIET Ghurdauri, Pauri-Garhwal

Tender No:     473/Reg. Office/ GBPIET/Tender/2026
               Date: 12/02/2026

**Section 1: Invitation to Bids**


**The Director**
**G.B. Pant Institute of Engineering & Technology**
**Ghurdauri, Pauri Garhwal.**


GBPIET, Pauri invites online bids (Technical & Financial) from eligible bidders which are valid for a minimum period of 180 days from the date of opening for "Selection of Managed System Integrator for Network Upgradation, Video Conferencing Setup & Desktop Computers for GBPIET Ghurdauri, Pauri Garhwal ,Uttarakhand"

**Document Control Sheet**

| Tender reference No | 473/Reg. Office/ GBPIET/Tender/2026 |
|---|---|
| Name of Organization | **G.B. Pant Institute of Engineering & Technology, Ghurdauri, Pauri Garhwal, Uttrakhand - 246194** |
| Scope of Work | "Selection of Managed System Integrator for Network Upgradation, Video Conferencing Setup & Desktop Computers for the Institute i.e GBPIET Campus , Ghurdauri, Pauri -Garhwal. |
| Tender Type (Open/ Limited/ EOI/ Auction/ Single) | OPEN |
| Tender Category (Services/ Goods/ works) | Services/ Goods |
| Re-bid submission allowed (Yes/ No) | No |
| Is Offline Submission Allowed (Yes/ No) | No |
| Is Multi Currency Allowed | No (Only INR) |
| Payment Mode (Online/Offline) | Offline |
| Address for Communication | GBPIET, Pauri Garhwal |
| Bid Validity days (180/120/90/60/30) | 180 Days |

**Important Dates & Details:**

| S. No. | Details | Date/ Time |
|---|---|---|
| 1. | Tender Uploading Date | **02/03/2026** |
| 2. | Tender Download start date | **03/02/2026** |
| 3. | Last date of receipt of any queries | 11/03/2026 |
| 4. | Start Date of Bid Submission | 04/03/2026 |
| 5. | Last Date & Time for Submission of Bids electronically on **https://www.uktenders.gov.in/** | 24/03/2026 |
| 6. | Date & Time of Opening of Bids (Technical Bids) | 25/03/2026 |
| 7. | Date & Time of Opening of Commercial Bids | Will be intimated to the qualified bidders at a later date. |
| 8. | Venue of Opening of Bids | Director Office Conference Room, Administrative Block of the institute. |
| 9. | Tender Fees (Non-refundable) | INR 5900/- |
| 10. | Earnest Money Deposit (E.M.D.) (Refundable) | INR 8.00 Lakhs/-, should be in the form of Bank guarantee issued by a Nationalized / Scheduled Bank/Banker Cheque/ FDR/DD, in favor of Director GBPIET. Payable at Pauri Garhwal or Ghurdauri, Uttarakhand |
| 11. | GBPIET Contact Person-<br>**For Technical Queries:-**<br><br>Dr. Bhumika Gupta. Head CSED<br>Dr. S.K Verma, A.P CSED<br>Dr. Jitendra Rauthan, A.P CSED<br><br>**For Others Queries**<br>  1. Registrar<br>  2. Director | **For Technical Queries:-**<br>bhumikagupta@gbpiet.ac.in<br><br><br><br>**For Others Queries**<br>registrar@gbpiet.ac.in<br>director@gbpiet.ac.in |

Note: Please specify RFP Number in all your correspondence. Interested parties may view and download the tender document containing the detailed terms & conditions, free of cost from the website https://www.uktender.gov.in

Section II – Instructions to the Bidders

**1.** Invitation for Online Bid Submission:

1.1.  GBPIET Pauri, invites (as per guidelines issued by Uttarakhand State Government available on the website https://ukenders.gov.in under the link "Bidders Manual Kit") offer through E-tendering for Selection of Managed System Integrator for Network Upgradation of GBPIET Ghurdauri Campus Uttarakhand "

1.2. Proposals are hereby called from the Bidders having capability for above Project on behalf of director GBPIET Ghurdauri, Pauri Garhwal Uttarakhand as per terms and conditions of the work order as per uploaded specifications electronically.

## 2. Searching for RFP Document

2.1. There are various search options built in the e-procurement Portal, to facilitate bidders to search active RFPs by several parameters. These parameters could include RFP ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for RFPs, 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 an RFP published on the above Portal.

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

2.3. The bidder should make a note of the unique RFP ID assigned to each RFP; in case they want to obtain any clarification / help from the Helpdesk.

## 3. Preparation of Bids

3.1. Bidder should take into account any corrigendum published on the RFP document before submitting their bids.

3.2. Please go through the RFP advertisement and the RFP 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 needs to be submitted. Any deviations from these may lead to rejection of the bid.

3.3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the RFP document / schedule and generally.

3.4. 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.

3.5. 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.

## 4. Submission of Bids

4.1. Bidder should log into the site well in advance for bid submission so that he/ she uploads the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

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

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

4.4. The bidder shall seal the original Bank Draft/ Bankers Cheque / Bank Guarantee /FDR in an envelope. The Bidder shall mark name and tender reference number on the back of the Bank Draft/ FDR/Bankers Cheque before sealing the same. The address In favor of Director, GBPIET, Ghurdauri, Pauri Garhwal, Uttarakhand, name and address of the bidder and the Tender Reference Number shall be marked on the envelope. If the envelope is not marked as specified above, XXXX will not assume any responsibility for its misplacement, pre-mature opening etc.

4.5. The bidder shall deposit the envelope at the designated time and place, on bid submission date. In case EMD is sent through Speed Post and it must reach as per date and time mentioned above.

4.6. EMD not meeting above deadlines will not be accepted and their uploaded bid will be rejected.

4.7. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the requisite cells with their respective financial quotes and other details (such as name of the bidder etc.). 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.

4.8. 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.

4.9. All the documents being submitted by the bidders would be encrypted using PKI or any other 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 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 openers' public keys. Overall, The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

4.10. Upon the successful and timely submission of bids, 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.

4.11. 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.

## 5. Assistance to Bidders

5.1. 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.

5.2. Any queries relating to the process of online bid submission or queries relating to State e-tender portal in general may be directed to the 24x7 State e-tender portal Helpdesk. The contact numbers for the helpdesk are

## 6. Cost to Bid

The Bidder shall bear all costs associated with the preparation and submission of its bid, including cost of presentation for the purposes of clarification of the bid, if so desired by the Purchaser. The Purchaser, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

## 7. Contents of the Tender Document

7.1. This tender document includes
   a) Section I - Invitation for Bids, the Tender Document includes:
   b) Section II - Instructions to Bidders;
   c) Section III - General Conditions of the Contract and Service Levels
   d) Section IV – Scope of Work
   e) Section V – Eligibility Criteria Forms
   f) Annexure 1 : Technical Bid Format
   g) Annexure 2: Financial Bid Format
   h) Annexure 3 : Technical Specification

7.2. The Bidder is expected to examine all instructions, forms, terms & conditions, and scope of work in the Tender Document and furnish all information as stipulated therein.

## 8. Clarification on Tender Document

8.1. A prospective Bidder requiring any clarification on the Tender Document may submit his queries, in writing, at the Purchaser's mailing address bhumikagupta@gbpiet.ac.in, registrar@gbpiet.ac.in as per schedule indicated in Section I – Invitation for Bids. The queries must be submitted in the following format (in Excel file,*.xls or .xlsx) only to be considered for clarification:

| Sr. No. | Section No. | Clause No. | Reference/ Subject | Clarification Sought |
|---------|-------------|------------|--------------------|----------------------|
|         |             |            |                    |                      |

8.2. All queries on the Tender Document should be received on or before as prescribed by the Purchaser in Section 1 of this tender document. The GBPIET Authority will resolve/ clarify/ under Section 8.1. Queries not submitted within this deadline or not in the given format may not be

taken up by the Institute. The Institute may decide to have a conversation/ interaction with the prospective bidder virtually / Physically.

8.3.   Purchaser's response (including the query but without identifying the source of inquiry) would be uploaded in the State e-tender portal (URL: https://www.uktenders.gov.in). Bidders are responsible for duly checking the above website for any clarifications.

8.4.   Client reserves the right not to respond to any/all queries raised or clarifications sought if, in their opinion and at their sole discretion, they consider that it shall be in appropriate to do so or do not find any merit in it.

Note: Inputs/ suggestions/ queries submitted by bidders as per clause 8.1 will be given due consideration by the RFP committee, however GBPIET is not mandated to accept any submission made by the bidder and nor the bidder will be given any written response to their submissions. If an input is considered valid by the committee the same will be accepted and incorporated as part of the corrigendum.

## 9.  Amendment of Tender Document

At any time prior to the last date for receipt of bids, the purchaser, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Tender Document by an amendment. The amendment will be notified on e-procurement portal https://www.uktenders.gov.in and should be taken into consideration by the prospective agencies while preparing their bids.

## 10.    Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and the Purchaser, shall be written in English language.

## 11.    Documents Comprising the Bids

The bid prepared by the Bidder shall comprise of the following components:

11.1.  Earnest Money Deposit (EMD) in the form of a Demand Draft/Bankers Cheque/Bank Guarantee/Fixed Deposit Receipt of a Scheduled/Nationalized Bank
11.2.  Eligibility Criteria Forms mentioned in the Eligibility Criteria Table
11.3.  Technical Bid
11.4.  Financial Bid
11.5.  Power of Attorney executed by the Bidder in favor of the tender calling authority or the duly Authorized Representative, certifying him as an authorized signatory for the purpose of this Tender (As per RFP)
11.6.  Self-Declarations as requested
11.7.  Document of proof as requested in the all the Schedules & the Annexure.

### 12. Bid Prices

12.1. The Bidder shall indicate in the Performa prescribed, the unit rates and total Bid Prices of the Equipment / Services, proposes to provide under the Contract. Prices should be shown separately for each item as detailed in Tender Documents.

12.2. In absence of above information as requested in, a bid may be considered incomplete and be summarily rejected.

12.3. Prices quoted in the bid must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. The Bid Prices shall be indicated in Indian Rupees (INR) only.

12.4. The rate quoted by the bidder should be valid for 3 months from the contract award date, in case the purchaser decides to procure/place an order for additional quantity of IT infrastructure within 3 months from the contract award date.

12.5. The Bidder shall prepare the bid based on details provided in the tender documents. It must be clearly understood that the Scope of Work & the BOQ is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by the Purchaser. The Bidder shall carry out all the tasks in accordance with the requirement of the tender documents and it shall be the responsibility of the Bidder to fully meet all the requirements of the tender documents. If during the course of execution of the project any revisions to the work requirements i.e. Technical specifications, Equipment sizing, Technical Architecture etc. are to be made to meet the goals of the Purchaser, all such changes shall be carried out within the current price without any impact to the Purchaser.

### 13. Firm Prices

Prices quoted in the bid must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. The Bid Prices shall be indicated in Indian Rupees (INR) only.

### 14. Earnest Money Deposit (EMD)

14.1. The Bidder shall furnish, as part of its bid, an Earnest Money Deposit (EMD) of the amount 8.00 Lakh( Eight Lakh Only)

14.2. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture.

14.3. The EMD must be submitted, by Bank Guarantee/Demand Draft/Bankers Cheque/FDR valid for period of one Year, of any Commercial Bank/Scheduled Bank/Nationalized Bank drawn in favor of Director, GBPIET **Payable at Ghurdauri or Pauri Garhwal. Uttrakhand.**

14.4. Unsuccessful Bidder's EMD will be discharged/ returned after award of contract to the successful Bidder. No interest will be paid by the Purchaser on the EMD.

14.5. The successful Bidder's EMD will be discharged upon the bidder executing the Contract and furnishing the Bank Guarantee/security deposit. No interest will be paid by the Purchaser on the EMD.

14.6. The EMD may be forfeited:
   a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid; or

b) In the case of a successful Bidder, if the Bidder fails;
  i. To sign the Contract in accordance with RFP Prerequisite.
  ii. To furnish Bank Guarantee for contract performance as mentioned in this RFP.

## 15. Period of Validity of Bids

15.1. Bids shall remain valid for 180 days after the date of opening of Technical Bids prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as nonresponsive.

15.2. In exceptional circumstances, the Purchaser may request the Bidder for an extension of the period of validity up to 180 days more. The request and the responses thereto shall be made in writing (or through e-mail).

## 16. Format and Signing of Bid

16.1. The original and all copies of the bid shall be typed or written in indelible ink. The Bidder shall sign the original and all copies or persons duly authorized to bind the Bidder to the Contract in accordance with conditions in the RFP. All pages of the bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the bid.

16.2. The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

16.3. The Bidder shall duly sign and seal its bid with the exact name of the firm/ company to whom the contract is to be issued.

## 17. Revelation of Prices

Prices in any form or by any reason before opening the Commercial Bid should not be revealed, failing which the offer shall be liable to be rejected.

## 18. Terms and Conditions of Bidders

Printed terms and conditions of the Bidders will not be considered as forming part of their Bids.

## 19. Local Conditions

19.1. It will be incumbent upon each Bidder to fully acquaint himself with the local conditions and other relevant factors at the site which would have any effect on the performance of the contract and / or the cost.

19.2. The Bidder is expected to make a site visit to obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into contract. Obtaining such information shall be at Bidder's own cost.

19.3. Failure to obtain the information necessary for preparing the bid and/or failure to perform activities that may be necessary for the providing services before entering into contract will in no

way relieve the successful Bidder from performing any work in accordance with the Tender documents.

19.4. The bidder and any of its personnel or authorized agents will be granted permission by GBPIET, Pauri to enter its facilities at various locations in the state for the purpose of such visits, but only upon the condition that the bidder, its personnel, and authorized agents, will indemnify the GBPIET, Pauri from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of such inspection, undertaken by the bidder. The Bidder shall at its own risk, peril, cost and liability undertake site visits to designated facilities in the state.

## 20. Consortium

Consortium is not allowed.

## 21. Last Date for Receipt of Bids

Bids will be received by the Purchaser at the address specified under Section I – Invitation for Bids no later than the time and date specified in Section I -Invitation for Bids. In the event of the specified date for the receipt of Bids being declared a holiday for the Purchaser, only hard copy of EMD will be received up to the appointed time on the next working day.

## 22. Late Bids

Any bid received by the Purchaser after the last date and time for receipt of bids prescribed by the Purchaser, pursuant to Section I - Invitation for Bids, will be rejected.

## 23. Modification and Withdrawal of Bids

23.1. No bid may be altered / modified subsequent to the closing time and date for receipt of bids. Unsolicited correspondences from Bidders will not be considered.

23.2. No bid may be withdrawn in the interval between the last date for receipt of bids and the expiry of the bid validity period specified by the Bidder in the Bid. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its EMD.

## 24. Address for Correspondence

The Bidder shall share the official mailing address, place and fax number to which all correspondence shall be sent by the Purchaser.

## 25. Contacting the Purchaser

25.1. No Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.

25.2. Any effort by a Bidder to influence the Purchaser's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

## 26. Evaluation of Bids

26.1. Technical and Financial evaluation committee will be formed for evaluation of the bids. Decision of the committee would be final and binding upon all the Bidders.

26.2. The Bidder should confirm unconditional acceptance of full responsibility of completion of job and for executing the 'Scope of Work' of this tender. This confirmation should be submitted as part of the Technical Bid. The Bidder shall also be the sole point of contact for all purposes of the Contract.

26.3. The Bidder should not be involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract. If at any stage of Tendering process or during the currency of the Contract, any suppression / falsification of such information is brought to the knowledge of the Purchaser, the Purchaser shall have the right to reject the bid or terminate the contract, as the case may be, without any compensation to the Bidder.

26.4. Bidder must possess the requisite experience, strength and capabilities in providing the services necessary to meet the Purchaser's requirements, as described in the Tender Documents. Bidder must possess the technical know-how and the financial wherewithal that would be required to successfully Supply, Install, Configure, Maintain and Manage all the components of the RFP as part of the solution and also to provide the maintenance and management support services sought by the Purchaser, for the entire period of the contract. The Bidder's bid must be complete in all respect and covering the entire scope of work as stipulated in the Tender document.

26.5. The Purchaser will examine the bids to determine whether they are complete, whether the bid format confirms to the Tender requirements, whether any computational errors have been made, whether required EMD have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

26.6. A bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

26.7. When deemed necessary, during the tendering process, the Purchaser may seek clarifications or may ask shortfall/clarification documents or ask the Bidders to make Technical presentations on any aspect from any or all the Bidders. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted.

## 27. Evaluation of Eligibility Criteria

27.1. In this part, the bid will be reviewed for determining the Compliance of the general conditions of the contract and Eligibility Criteria as mentioned in the Tender. Any deviation for general conditions of the contract and eligibility criteria will lead to rejection of the bid.

27.2. Before opening and evaluation of their technical proposals, bidders are expected to meet all the general conditions of the contract and the eligibility criteria as mentioned below: - Bidders failing to meet these criteria or not submitting requisite supporting documents / documentary evidence for supporting pre-qualification criteria are liable to be rejected summarily.

27.3. The bids must be complete in all respects and should cover the entire scope of work as stipulated in the tender document. The invitation to the bids is open to all bidders who qualify the eligibility criteria as follows:

| Sr. No. | Clause | Documents Required |
|---|---|---|
| 1. | The bidder must be a company registered in India under Indian Companies Act 1956/ Indian Companies Act 2013<br><br>OR<br><br>A partnership firm registered under Indian Partnership Act, 1932.<br><br>OR<br><br>A Limited Liability Partnership (LLP) firm registered under Limited Liability Partnership Act 2008.<br><br>and in operation for at least 5 years as on 31.03.2025 and should have their registered offices in India.<br><br>It must be registered with appropriate authorities for all applicable statutory registration and Taxes | Valid documentary proof of: Certificate of incorporation/ Registration, Certificate of Commencement of business, Certificate consequent to change of name if applicable Copy of Memorandum and Articles of Association or Partnership deed.<br>Valid documentary proof of: GST. Income Tax registration/ PAN number Income Tax returns for the last three years |
| 2. | Bidder should have executed at least one single work of establishing and configuring LAN of minimum 500 network nodes with Network Switches, WiFi and Firewall in last 3 Years of the value of minimum 2 Crore in Government / PSUs | Copy of the relevant completion certificate along with PO to be submitted by the Bidder. |
| 3. | The Bidder should have a minimum average annual turnover of 2.5 Crore for last three financial years. | Copy of the Audited Profit and Loss statement and statutory auditor / CA certificate from a regarding turnover. The certificate should be originally signed or notarized. |
| 4. | The bidder should have positive net worth as on date. | CA Certificate |
| 5. | The Bidder should not have been blacklisted by the Government of India or any state government or any of its agencies for any reasons whatsoever and the bidder should not | Undertaking from the Authorized Signatory as per the format in Section |

| | | |
|---|---|---|
| | have been blacklisted by Central / any other State/UT Government or its agencies for indulging in corrupt or fraudulent practices or for indulging in unfair trade practices as on the date of Publication of this RFP. | |
| 6. | The bidder should have an office in Uttarakhand. However, if the presence is not there in the state, the System Integrator should give an undertaking for establishment of a project office, within two months from the day the contract is awarded. | Self-certification duly signed by authorized signatory on company letter head. |
| 7. | The bidder shall be the single point of Contact for GBPIET, Pauri for Design, Supply, Install, Connect, Configure, Implement, Design, Construct to Go Live all the networking Infrastructure per the scope defined in this RFP and shall be solely responsible for all warranties and upgrades etc. | Self-certification duly signed by authorized signatory on company letter head. |
| 8. | The bidder should submit valid letter from network equipment OEM confirming the following:<br>• Authorization for bidder Confirm that the products quoted are not "end of life or end of sale products". If in case the support for the product quoted has been stopped/ withdrawn till the time of delivery of equipment, the same will be changed with the same configuration or superior product at no extra cost.<br>• Undertaking that the warranty, AMC support including spares, patches, and upgrades for the quoted products shall be available for the entire period of the project at the quoted rates in the bid. | • Documentary evidences such as Authorization letters MAF (Manufacturers Authorization Form) from all OEM/ Vendors whose products are being quoted by the Bidder need to be attached in the proposal).<br>• Bidder to share name of proposed OEMs for shared BoQ as a separate sheet along with the technical proposal. |

Note:
(a) If the details furnished by the bidder found to be wrong at any point time during the bidding or contract, GBPIET, pauri reserves the right to terminate the contract and forfeit the EMD/PBG in XXXX favor.

## 28.  Evaluation of Technical Bids

28.1.  Only those bidders who qualify all Pre-qualification / Eligibility Criteria requirements will be qualified for technical bid evaluation.

28.2. The technical bid will first be reviewed for determining the Compliance of the Technical bids with the Tender terms and conditions, Minimum/ Mandatory Technical requirements shared in Annexure 3 for the scope defined in the RFP and the scope of work as defined in this tender.

28.3. Any bid found to be non-compliant to the mandatory Technical Requirements, Tender terms and conditions and the scope of work shall be rejected and will not be considered for further evaluation. Bids that are technically compliant would only be taken up for commercial evaluation.

28.4. Bidders should submit the Technical Specification compliance sheet as a part of technical bid as mentioned in RFP. All technical specification given in Scope of Work.

28.5. If the bidder is found to be non-compliant with any of the mandatory technical specifications, then the respective bid may be rejected.

28.6. Bidder is required to submit all the supporting documents as per the criteria mentioned in the RFP. XXXX reserves right to summarily reject any bid which does not contain all the mandatory supporting document or may ask bidder for any clarification, the decision of XXXX will be final and binding in this regard.

28.7. XXXX reserves the right to disqualify any bidder based on any criteria considered relevant and its decision is binding. Representations, if any from disqualified bidders will not be entertained and will be summarily rejected. XXXX will not respond to any query raised by bidders seeking reasons for rejection of the bid.

## 29.    Evaluation of Financial Bids

29.1. The Bidder has to submit the commercial bid through e-procurement website (https://www.uktenders.gov.in/) in the format shared in Annexure – 2.

29.2. In order to be considered for financial evaluation, the bidder has to quote in terms of rupee. Any conditional bid would be rejected.

29.3. The Quote price shall be considered as inclusive of all Taxes/Duties/Service Tax etc.

29.4. The Bidder offering lowest evaluated responsive price, as above, would be selected as successful Vendor.

29.5. GBPIET, Pauri shall notify successful Bidder. It will not entertain any query or clarification from Applicant(s) who are not selected in the RFP process.

29.6. The total price quoted by the bidder in BOQ will be considered as inclusive of all Taxes / GST /Any applicable levies. It will be liability of the bidder to meet scope of work as mentioned in the RFP.

Note:
Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".

## 30.    Purchaser's Right to Vary Scope of Contract at the time of Award

The Purchaser may at any time, by a written order given to the Bidder, make changes to the scope of the Contract as specified.

## 31. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids

The Purchaser reserves the right to accept any bid, and to annul the Tender process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

## 32. Notification of Award

32.1. Prior to the expiration of the period of bid validity, pursuant as mentioned in RFP, the Purchaser will notify the successful Bidder in writing by mail, followed by registered letter to be confirmed in writing by registered letter, that its bid has been accepted.

32.2. The notification of award will constitute the formation of the Contract.

32.3. Upon the successful Bidder's furnishing of Bank Guarantee of 3% of the Work/Purchase Order Value for contract performance pursuant as mentioned in RFP, the Purchaser may notify each unsuccessful Bidder and will discharge its EMD,

## 33. Award of Contract

33.1. There will be only one vendor for the entire Scope Of Work.

33.2. At the same time as the Purchaser notifies the successful Bidder that its bid has been accepted, the Purchaser will issue the LoA (Letter of Award) and Performa for Contract incorporating all agreements between the parties.

33.3. Within 30 days of receipt of the LoA, the successful Bidder shall sign and date the Contract and return it to the Purchaser.

33.4. In the case of Bidder whose tender bids are accepted, bidder shall be required to give Security Deposit as mentioned in tender along with acceptance of LOA, within 30 days. Security Deposit will be in the form of Bank Guarantee (BG) of any nationalized bank.

33.5. GBPIET may, at any time, terminate the contact by giving written notice in 30 days advance to the vendor without any compensation, if the vendor becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to GBPIET, Pauri.

33.6. If at any point during the contract, if the vendor fails to, deliver as per the tender terms and conditions or any other reason amounting to disruption in service, the Termination and Exit Management clause will be invoked.

33.7. Quantities mentioned are indicative and GBPIET, Pauri reserves the right at the time of award of purchase order to increase or decrease the quantity of goods and / or services from what was originally specified while floating the RFP without any change in unit price or any other terms and conditions.

33.8. Objection, if any, to the Purchase Order must be reported to the tender processing section by the vendor within Seven (7) working days counted from the Date of Purchase Order for modifications, otherwise it is assumed that the vendor has accepted the Purchase Order in toto.

33.9. If the vendor is not able to supply/ deploy/ operationalize the ordered Hardware/ software system/ service/ process completely within the specified period, the penalty clause will be invoked.

33.10. The decision of GBPIET, Pauri shall be final and binding on all the vendors to this document. GBPIET reserves the right to accept or reject an offer without assigning any reason whatsoever.

## 34. Bank Guarantee for Contract Performance

34.1. Within 30 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance security in the form of Bank guarantee of nationalized bank valid for a period of contract, which is one year, plus Three additional months as claim period in accordance with the Conditions of Contract, in the Contract Performance Guarantee Bond.

34.2. Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Performance Security. In case of exigency, if the Purchaser gets the work done from elsewhere, the difference in the cost of getting the work done will be borne by the successful Bidder.

## 35. Confidentiality of the Document

This Tender Document is confidential and the Bidder shall ensure that anything contained in this Tender Document shall not be disclosed in any manner, whatsoever.

## 36. Rejection Criteria

Besides other conditions and terms highlighted in the tender document, bids may be rejected under following circumstances:

### 36.1. General Rejection Criteria

36.1.1. Bids submitted without Tender Fees.

36.1.2. Bids submitted without or improper EMD

36.1.3. Bids received through Telex /Telegraphic / Fax/ E-Mail/ Hard copies except, wherever required, will not be considered for evaluation.

36.1.4. Bids which do not confirm unconditional validity of the bid as prescribed in the Tender

36.1.5. If the information provided by the Bidder is found to be incorrect / misleading at any stage / time during the Tendering Process

36.1.6. Any effort on the part of a Bidder to influence the Purchaser's bid evaluation, bid comparison or contract award decisions

36.1.7. Bids received by the Purchaser after the last date and closing time for receipt of bids prescribed by the Purchaser, pursuant to Section I - Invitation for Bids

36.1.8. Bids without tender Specific OEM Authorization, power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder

### 36.2. Technical Rejection Criteria

36.2.1. Non-compliance of every specification as mentioned n the tender document.

36.2.2.  Technical Bid containing commercial details.

36.2.3.  Revelation of Prices in any form or by any reason before opening the Commercial Bid

36.2.4.  Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Tender Document in every respect.

36.2.5.  Bidders not quoting for the complete scope of Work as indicated in the Tender documents, addendum (if any) and any subsequent information given to the Bidder.

36.2.6.  The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with this tender.

36.2.7.  If the bid does not confirm to the timelines indicated in the bid.

## 36.3.  Commercial Rejection Criteria

36.3.1.  Incomplete Financial Bid

36.3.2.  Financial Bids that do not conform to the Tender's Financial bid format

36.3.3.  If there is an arithmetic discrepancy in the commercial bid calculations the Purchaser shall rectify the same. If the Bidder does not accept the correction of the errors, its bid may be rejected.

**36.4. Payment Schedule**

> 36.4.1. Payments will be released only on satisfactory acceptance of the deliverables for each Task as per the following schedule:

| Sr. No. | Item | Fee Payment | Deliverables |
|---|---|---|---|
| 1. | Delivery of equipment | 60% payment of contract value | • The Bidder will deliver the items at designated location as per the purchase order and obtain signature with date and stamp on Delivery Proof (s) of the concerned user.<br>• The Bidder will submit a copy of Proof of Delivery duly signed, date of delivery, designation and office seal, legibly recorded, should reach GBPIET, Pauri. |
| 2. | Installation, configuration, testing, commissioning | 30 % payment of contract value shall be made after Installation, configuration, testing, commissioning of passive components | • Bidder has to install the ordered items and will prepare installation, commissioning and testing reports.<br>• The Bidder will submit all original installation reports, to Authority of GBPIET, Pauri. |
| 3. | Acceptance | Remaining 10% payment of contract value shall be made after successful acceptance | • On successful final acceptance and project signoff by GBPIET officials . |

Note:
- All Payments shall be made in Indian Rupees Only
- Payments should be subject to deductions of any amount for which the Bidder is liable under the tender conditions. Further, all payments shall be made subject to deduction of TDS (Tax deduction at Source) as per the current Income-Tax Act.

Section III: Scope of Work

## A. Broad Scope

- The proposed solution will be based on configuring LAN with network switched, WiFi with controllers and security firewall.
- Individual building will be connected to central location by using existing OFC Cable. If a need arise GBPIET may separately create provisions for laying passive components like cables/OFC/Patch panel etc..at additional cost

## B. Tentative Project Plan

| S.NO. | Activity | Action required by System Integrator (SI) | Action required by XXXX |
|---|---|---|---|
| 1 | Placement of PO | SI will coordinate with Departments as per instruction from Head, CSED or In-charge of the Project. | |
| 2 | Material dispatch for site | SI Will inform GBPIET, Pauri designate Officer material delivery date | Require secure storage space and name & designation of person authorized to receive material |
| 3 | Receipt of material at site | SI's representative will hand over the material at site to designated person. | Provide name and contact detail of person authorized to receive material and sign the delivery challan |
| 4 | Start Installation work | SI's representative will provide the installation detail to the concerned person at site | Depute & designate a person who will approve installation plan |
| 5 | Work completion Certificate | Will submit request | Provide name and contact detail of person who will approve work and sign installation report |

Section IV-Eligibility Criteria Forms

**1.** Form No. E1: Certificate of Registration/Incorporation

| Sr. No. | Name of Organization | Address | Certification Date | Copy of Certificate of Registration /Incorporation uploaded? |
|---------|---------------------|---------|--------------------|--------------------------------------------------------------|
| 1 | | | | |
| 2 | | | | |

Note: Please fill this form and upload the copy of Certificate of Registration/Incorporation.

**2.** Form No. E2: Financial strength of the bidder

| Financial Year | Turnover (Rs. In Crores) | Audited Accounts uploaded? (Yes/No) |
|----------------|--------------------------|-------------------------------------|
| 2021-22 | | |
| 2022-23 | | |
| 2024-25 | | |
| Grand Total | | |

Note: Please fill this form and upload the Audited Annual Accounts / Balance Sheet along with Profit & Loss Account for the last three financial years.

**3.** Form No. E3: Bidder's Experience (Customer References)

| Sr. No. | Name of Organization | Contact Person | Contact Details | Date and Period of Contract | Project Cost | Type of Supporting Document Attached |
|---------|---------------------|----------------|-----------------|------------------------------|--------------|--------------------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

Note: Please fill this form and upload the supporting documents (Work Order(s)/Customer Reference and Completion Certificate) in scanned format for the details of such projects under taken along with clients' on-going/completion certification/ letter should been closed. Failing the same may lead to the rejection of the bid. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

**4.** Form No. E4: Manufacturer's Authorization Form ( MAF) for each Category of items OEM Separate MAF is required.

Dated:

To,

Director, GBPIET, Ghurdauri Pauri- Garhwal

Sub: Manufacturer's Authorization Form ( MAF) for …………………

Ref: Submission of proposal in response to RFP for "Selection of Managed System Integrator for Network Upgradation, Setup Video Conferencing Studio & Personal Computers (PC) for GBPIET Ghurdauri, Pauri Garhwal"

Tender Enquiry No.-                                        Dated

Dear Sir,

We [insert: name of OEM] who are established and reputable manufacturers of [insert: name and/or description of the equipment or other goods / services] having production facilities at [insert: address of factory] do hereby authorize BIDDER NAME & ADDRESS to submit a bid, and subsequently sign the Contract with you for Tender No                        dated                including the above equipment quoted to PRIME BIDDER against this NIT.

We hereby extend our full Technical Support, Guarantee and Warranty on a back to back basis as per the original Tender Specification for the above specified equipment/ materials offered supporting the supply, installation and achieving of Operational Acceptance of the System by the Bidder against these Bidding Documents, and duly authorize said Bidder to act on our behalf in fulfilling the contractual obligations.

For and on behalf of the Manufacturer

(Signature)………………………………………………………….

(Place): ……………………………………………………….
                    (Printed Name)……………………………………………….

(Designation)…………………………………………………………

(Common Seal)…………………………………….....

**5.** Form No. E5: No Deviation Certificate

Dated :

To,
XXX
SUB: NO DEVIATION CERTIFICATE

REF: Submission of proposal in response to RFP for "**Selection of Managed System Integrator for Network Upgradation for Uttarakhand** "

Tender Enquiry No.-                                              dated

Dear Sir,

We (NAME OF OEM), for [insert:  name and/or description of the equipment or other goods / services] hereby confirm that there is "NIL DEVIATION" in the Specification, hardware and services being supplied us against the Tender document issued vide your Tender Enquiry No. dated.

For and on behalf of the Manufacturer

(Signature).........................................…...………….

(Place): .................................................…...............
                    (Printed Name).....................................…...…………

 (Designation)...............…….…..............................

(Common Seal)…………………………………….....

**ANNEXURE 1 Cover 1 - (Technical Bid/Financial Bid)**

| Sl. No. | Document | File Type |
|---|---|---|
| 1 | Name and Postal Address of the Company along with Telephone, Mobile, Fax, Email | .pdf |
| 2 | EMD of 8.00 (Rs. Eight Lakh only) (scanned copy) and Bank Details (certified copy) | .pdf |
| 3 | CA certified turnover certificate, Income Tax return for last 3 financial years and VAT /PAN/ Sales Tax registration certificates along with TIN No. | .pdf |
| 4 | Proof of minimum experience of completion of similar nature of work as mentioned in Eligibility Criteria in the States/ UTs Departments / Ministries / Organizations of the Govt of India / State Govt during the last 05 years ending December 2025 | .pdf |
| 5 | Undertaking that the bidder has not been blacklisted by any Departments / Ministries / Organizations of the Govt of India / State Govt. | .pdf |
| 6 | Registration and incorporation particulars of firm / Company and Compliance statement that bidder agrees to all terms and conditions of this tender document | .pdf |
| 7 | Authorization Certificate from OEM | .pdf |
| 8 | Details of Award / Certificates of merit etc. received from any organization if any | .pdf |

| | | |
|---|---|---|
| | Cover 2 - (Financial Bid) (to be submitted online in .xls format) | |
| Sl. No. | Document | File Type |
| 1 | Financial bid as per Annexure-II of this tender document | .xls |

Note

1. The bidder should take care that rate mentioned sufficiently covers the expenses that the bidder shall incur on the project as mentioned in the scope of work. There should not be any separate cost for each item. The indicative list of cost items in the bidder's scope of work are Cost of equipment, Installation and Commissioning Charges, Onsite Warranty Charges, Transportation & Forwarding Charges to the site and Insurance to cover equipment during transit, up to installation of equipment at the respective sites and handing it over to end-user.

2. The above quoted price shall be inclusive of all taxes, duties, service tax etc. and is consider for L1.

Section V- BoQ and Technical Specifications

**A - BOQ**

**Part 1. Active & Passive Components for Managed Network.**

| Sno | Network Equipment | Qty |
|---|---|---|
| 1 | Core Switch in Hyper Availability (High Availability) Mode (H.A Mode) | 01 |
| 2 | Access Switch - PoE | 30 |
| 3 | Access Points | 175 |
| 4 | Wireless Controller | 1 |
| 5 | Secure Firewall | 1 |
| 6 | 10G Single Mode SFP Modules | 60 |
| 7 | Cat 6 U/UTP Indoor Cable, LSZH Jacket, 305m Box | 50 |
| 8. | 19" 1U 24 port UTP Modular Loaded Patch Panel | 30 |
| 9. | Patch Cord, LSZH U/UTP Cat.6, Length, 1 Mtr | 400 |
| 10. | Patch Cord, LSZH U/UTP Cat.6, Length , 2 Mtr | 200 |
| 11 | Cat 6 UTP RJ 45 Keystone Jack with Faceplate and SMB | 300 |
| 12 | OS2 10G Ready Unitube Armored Fiber Cable (In Mtr) | 3000 Mtr |
| 13 | 24 Core Fixed Type LC LIU / Fiber Termination Box | 10 |
| 14 | 6 Core Fixed Type LC LIU / Fiber Termination Box | 50 |
| 15 | LC-LC Duplex OS2 LSZH Patch cord, 3 Mtr | 60 |
| 16. | 12U Wall mount 550x600 Rack with accessories as per specifications | 24 |
| 17. | 9U Wall mount 550x600 Rack with accessories as per specifications | 02 |
| 18. | 42U Floor standing 600x1000 Rack with accessories as per specifications | 01 |
| 19. | 32 mm HDPE pipe (Mtr) | 3000 Mtr |
| 20. | PVC conduit (Mtr) | 15000 Mtr |
| 21. | Laying of Fibre 3 feet  Under ground  (Mtr) | 3000 |
| 22. | Laying of Cat 6 UTP Cable  in conduit/ chasing etc (mtr) | 15000 |

**Part 2. Video Conferencing Setup**

| Sno | Equipment Details | Qty |
|---|---|---|
| 1 | Complete Setup for VC Setup  with Mic and Interactive Flat panel with OPS (CORE i7 13th Generation):- etc. **(Turnkey Solution)** | 02 Sets. |

**Part 3. Desktop Computers / Personal Computers:**

| Sno | Equipment Details | Qty |
|---|---|---|
| 1 | **Desktop Computers / Personal Computers** | 50 |

**Technical Specifications**

## 1.    <u>Core Switch – 48 Port</u>

| S.No | Parameters |
|---|---|
| **1** | **General Features** |
| 1.1 | Switch shall be 1U and rack mountable in standard 19" rack. |
| 1.2 | Proposed switch should be enterprise grade switch with x86 based CPU architecture |
| 1.3 | All the switches shall have same OS for ease of integration and management. |
| **2** | **Port Density** |
| 2.1 | The switch should have minimum of 48 nos. 1/10/25G Gigabit Ethernet Ports and in addition 4 nos. of 40/100 Gig Uplink Ports. Switch & Fiber modules shall be from the same OEM. |
| **3** | **High Availability** |
| 3.1 | Switch shall have hot swappable 1:1 redundant power supply and redundant fan from day 1. |
| 3.2 | Switch shall support VSS or equivalent features allows links that are physically connected to two different switch to appear as a single port channel. All the cables/accessories for the this is to be provisioned from day 1. |
| 3.3 | Shall support In Service Software Upgrade (ISSU) to provide an upgrade of the entire platform or an individual task/process without impacting hardware forwarding. ISSU supports upgrades, downgrades, and rollbacks. |
| **4** | **Switch Architecture & Performance** |
| 4.1 | Switching system shall have 3.2 Tbps of switching fabric and minimum 1Bpps of forwarding rate. |
| 4.2 | Switch shall have minimum 16 GB RAM and 16 GB Flash. |
| 4.3 | Switching system shall support minimum 64K MAC Addresses and 1K VLANs. |
| 4.4 | Switch should support minimum 10K ACLs, 7K Multicast Routes and 64K IPv4 Routes, 64K IPv6 Routes |
| 4.5 | Switch shall support application visibility and traffic monitoring with sflow/jflow/netFlow entries. |
| 4.6 | Packet buffer : 32 MB |
| **5** | **Layer 2 and Layer 3 Feature** |
| 5.1 | Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae, 802.3x, 802.1p, 802.1Q, 1588v2 |
| 5.2 | Must support BGP, MPLS, IS-IS, VRF, VXLAN, OSPF, Policy-Based Routing (PBR), PIM, and VRRP from Day 1 |
| **6** | **Multicast Support** |
| 6.1 | MLD snooping and IGMP snooping v1, v2 and v3 |
| **7** | **Quality of Service** |
| 7.1 | Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing. |
| 7.2 | Eight egress queues per port |
| **8** | **Security Feature** |
| 8.1 | Should support MACSEC as per IEEE 802.1AE on hardware from day 1. |

| | |
|---|---|
| 8.2 | Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. |
| 8.3 | Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment. Switch should be able to integrate with on-prem RADIUS solution for 802.1X authentication |
| 8.4 | During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic. |
| **9** | **Management** |
| 9.1 | Switch needs to have console port for administration & management |
| 9.2 | Switch should support Management using CLI, GUI using Web interface and should support management features like SSHv2, SNMPv2c, SNMPv3. |
| 9.3 | The solution should allow for network system virtualization technology that pairs two switches into one from perspective of neighboring switch. This helps in simplifying L2 and L3 topology and representing the virtualized system represent as a single spanning tree node for rest of the network and a single node for Management |
| 9.4 | Switch should support comprehensive programmability features like Model-Driven Programmability, NETCONF/REST interface, API or equivalent. |
| **10** | **Certification** |
| 10.1 | Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards |
| 10.2 | Switch / Switch's Operating System should be tested for EAL2/NDPP/NDcPP or above under Common Criteria Certification. |

## 2.    **Access Switch – PoE 24, Port**

| S.No | Parameters |
|---|---|
| **1** | **General Features** |
| 1.1 | Switch shall be 1U and rack mountable in standard 19" rack. |
| 1.2 | Proposed switch should be enterprise grade switch with x86 based CPU architecture |
| 1.3 | All the switches shall have same OS for ease of integration and management. |
| **2** | **Port Density** |
| 2.1 | The switch should have minimum of 24x10/100/1000 Base-T ports and 4x1/10G SFP+ ports. Switch should be Populated with required number of SFPs as per the Solution. Switch & Fiber modules shall be from the same OEM. |
| 2.2 | Should support PoE (802.3af) and PoE+ (802.3at) with a PoE power budget of 370W. |
| **3** | **High Availability** |
| 3.1 | The switch should support a modular, hot-swappable, redundant power supply. It shall be supplied with a single power supply initially, with the option to add a redundant power supply as needed. |
| 3.2 | Switch should support stacking via dedicated stacking port in addition to asked Uplink ports. Should support for minimum 80 Gbps of stacking throughput. All the required cables/accessories for stacking should be provisioned from Day 1. |
| 3.3 | Stacked units should behave as a single spanning tree node for rest of the network |
| **4** | **Switch Architecture & Performance** |
| 4.1 | Switching system shall have minimum 128 Gbps of switching fabric and minimum 95 Mpps of forwarding rate. |
| 4.2 | Switch shall have 2 GB RAM and 2 GB Flash with min 5 MB of Packet Buffer |

| | |
|---|---|
| 4.3 | Switching system shall support minimum 16K MAC Addresses and 3K IPv4 Routes or more |
| 4.4 | Switch should support minimum 512 Active VLANs. |
| **5** | **Layer 2 and Layer 3 Feature** |
| 5.1 | Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1AE , 802.3x, 802.1p, 802.1Q |
| 5.2 | Must support Static Routing, RIP, OSPF, Policy-Based Routing (PBR), PIM, and VRRP from Day 1. |
| **6** | **Multicast Support** |
| 6.1 | MLD snooping and IGMP snooping v1, v2 and v3 |
| **7** | **Quality of Service** |
| 7.1 | Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing. |
| 7.2 | Eight egress queues per port |
| **8** | **Security Feature** |
| 8.1 | Should support MACSec as per IEEE 802.1AE on all hardware ports. |
| 8.2 | Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. |
| 8.3 | Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment. |
| 8.4 | During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic. |
| **9** | **Management** |
| 9.1 | Switch needs to have console port for administration & management |
| 9.2 | Management using CLI, GUI using Web interface should be supported |
| 9.3 | Switch should support technology that makes sure to represent 2 or more switches as a single switch to neighboring switches. This helps in simplifying L2 and L3 topology and representing the virtualized system represent as a single spanning tree node for rest of the network and a single node for Management. |
| 9.4 | Switch should support Management using CLI, GUI using Web interface and should support management features like SSHv2, SNMPv2c, SNMPv3. |
| 9.5 | Switch should support comprehensive programmability features like Model-Driven Programmability, NETCONF/REST interface, API or equivalent. |
| **10** | **Certification** |
| 10.1 | Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards |
| 10.2 | Switch / Switch's Operating System should be tested for EAL 2/NDPP/NDcPP or above under Common Criteria Certification. |

## 3.    <u>Access Point</u>

| S.No | Parameters |
|---|---|
| 1 | Access Point shall support tri radio operation with 2x2 MIMO on all three radio interfaces i.e 2.4ghz, 2x 5ghz and 6ghz. It should also support MU-MIMO technology. |

| | |
|---|---|
| 2 | Access Point should have Bluetooth5 radio to support use cases of location, asset tracking and analytics. |
| 3 | Access Point shall be able to powered up using 802.3at power with full radio operation. It should also have option of DC power input. |
| 4 | Access Point shall have dedicated radio/chipset for spectrum monitoring capabilities, WIPS and off channel RRM without compromising and using the client serving radios. |
| 5 | Access Point should support upto 4K-QAM, A-MPDU, A-MSDU, 802.11 DFS, MRC, beamforming, CSD, TWT, BSS-Coloring |
| 6 | Access Point should have 1x 100M/1000M/2.5G Multigigabit Ethernet (RJ-45) |
| 7 | Access Point should have USB port for future requirement. |
| 8 | Must have atleast 4 dBi Antenna gain on each radios |
| 9 | Must Support data rate upto 6 gbps. |
| 10 | Must support minimum of 23dbm of transmit power in all 2.4Ghz, 5Ghz & 6ghz radios. And should follow the local regulatory Norms. |
| 11 | Must support AP enforced load-balance between 2.4Ghz and 5Ghz band. |
| 12 | Must incorporate radio resource management for power, channel and performance optimization |
| 13 | Must have -97 dB or better Receiver Sensitivity. |
| 14 | Must support Proactive Key Caching and/or other methods for Fast Secure Roaming. |
| 15 | Must support Management Frame Protection. |
| 16 | Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI). |
| 17 | Access Points must support Hardware-based encrypted user data and management traffic between controller and Access point for better security. |
| 18 | Must be plenum-rated (UL2043). |
| 19 | Must support 16 WLANs per AP for SSID deployment flexibility. |
| 20 | Access Point Must continue serving clients when link to controller is down. It should also have option to authenticate user through Radius server directly from Access Point during link unavailability to controller. |
| 21 | Must support telnet and/or SSH login to APs directly for troubleshooting flexibility. |
| 22 | 802.11e and WMM |
| 23 | Must support QoS and Video Call Admission Control capabilities. |
| 24 | Access point should support EAP-TLS, EAP-TTLS/MSCHAPv2, PEAP and EAP-FAST |
| 25 | Access point must be able to support AAA Override for VLAN, ACL and QoS. It should also be able to support Radius profiling. |
| 26 | Access point should be WIFI alliance certified for Wifi-7, Wi-Fi 6, Wi-Fi 6E, WPA3-R3, WPA3-Suite B and Bluetooth SIG for Bluetooth low energy. |

**4.** **Wireless Controller**

| S.No | Feature | Specifications |
|------|---------|----------------|
| 1 | Hardware | Wireless controller should support 500 AP and 1000 clients from day 1. |
| | | The controller shall support min 10 Gbps tunneling capacity |
| | | The controller shall support 2x 10G/Multigigabit copper/Fiber uplink. |
| | | Wireless Controller shall support link aggregation and load sharing between Access Point to WLC links |
| | | The controller shall support hardware encrypted data plane between Access Point and Controller |
| 2 | High Availability | High Availability mode shall support controller inline data plane mode as well as local switching mode and Mesh mode |
| | | High Availability mode shall allow geographically dispersed installation between Controllers |
| | | The controller failover shall not trigger client de-authentication and re-association |
| | | The redundant Controller shall sync Access Point and Client Status, including DHCP IP lease status |
| 3 | Software | Access Point shall be able to proactively distributes Client connection before and after association and tracking client condition in real time using data packet RSSI |
| | | The controller shall support standard-based, secure AP-Controller data & control protocol like CAPWAP or equivalent |
| | | The controller shall support Inter-Controller Wireless Roaming |
| | | The controller shall maintains per-user Application usage and shall be able to export it for network analytic. |
| | | The controller shall support Multi Languages options from embedded GUI Management |
| | | The controller shall provide per-Client Connection Scoring and provide reasoning of Client Connection Score |
| | | The controller shall support Cellular offload using IPv6 tunnelling to Mobile Core network |
| 4 | RF management | The controller shall be able to support multiple RF Management profile per group of APs, including Transmit Power Control and Dynamic Channel Assignment on both 2.4GHz and 5Ghz |
| | | The controller shall be able to identify and avoid interferers with network performance impact analysis report |

| 5 | Application Recognition and Control | The controller shall support per-user and per-WLAN based application recognition and control that throttle usage by rate-limiting |
|---|---|---|
| | | The controller application recognition technology shall support exporting to 3rd party compatible format, such as NetFlow v9 |
| | | The controller shall support new application signatures without upgrading controller software |
| 6 | BYOD & Security | The controller shall provide Device Profiling using multiple profiling methods to reduce false-detection |
| | | The system shall provide secure onboarding service for both employee and guest based on standard-based security protocol |
| | | Proposed system shall not use public cloud as user data repository |
| | | The controller shall be able to embedded custom web portal page (HTML) to fully customize user experience without additional cost or extra box |
| | | The controller shall provide rule-based rogue classification and automatically run rogue mitigation action |
| | | The controller shall be able to detect employee device connection to Rogue Access Point and contain it automictically. It should also support protection from Honeypot or Evil twin. |
| | | The controller shall support Content Security using DNS integration, Web Classification shall be fully customizable |
| | | The system shall support control plane encryption on both IPv4 and IPv6 |
| | | The Controller's image upgrade shall be done through secure, encrypted transport |
| | | The controller shall be able to provide unique pre-shared keys to the devices that do not support the 802.1x security protocol |
| | | The controller shall support Identity PSK for on boarding |
| | | The controller shall support identification & mitigation of threats inside encrypted traffic |
| 7 | Network | The controller shall support mapping of specific VLANs to single SSID, depending on Access Point location and user |
| 8 | Configuration | The controller shall support automatic VLAN assignment per SSID to load-balance user connection |
| | | The controller shall support embedded best practice configuration profile and setup |

## 5. Firewall

| S.No | Parameters |
|---|---|
| 1 | "The Firewall solution offered must be rated as 'leaders' or 'Challengers' in the latest Magic Quadrant for Enterprise Firewall published by Gartner / Forrester from last 5 years. The proposed solution should be a Next Generation Enterprise Firewall which provide firewall, AVC, IPS and anti-apt functionality in a single appliance from day one. |
| 2 | Solution should provides capabilities like dynamic real-time metrics based , policy-based, application path selection across multiple WAN connections . The firewall solution should have following capabilities  Application Aware Routing, Health Monitoring, DIA, Dual ISP, Data interface Management for simplified branch capabilities. Bidder should include all the licenses to achieve this capability of SDWAN functionality |
| 3 | The appliance should support atleast 8x 1 GBASE-T Ethernet and 4x SFP+ 1/10Gbps Ethernet ports from day 1. |
| 4 | The appliance hardware should be a multicore CPU architecture and  should not be proprietary ASIC based in nature & should be open architecture based on multi-core cpu's to protect & scale against dynamic latest security threats. The appliance hardware should have a hardened  operating system from the OEM and should support  support minimum of 16 GB of RAM to make sure all the security capabilities are provided without degradation form day one |
| 5 | Proposed firewall should not consume more than 1RU of rack space and having Field-replaceable SSD, 480GB. |
| 6 | Should support 15 Gbps of NGFW (FW, AVC and IPS) performance with support of min 60K connections per second at L7/AVC/app-ID. |
| 7 | High Availability Configurations shall support  Active/ Passive or Active/Active-Clustering |
| 8 | Firewall should support creating access-rules with IPv4 & IPv6 objects, user/groups, application, geolocation, url, zones, vlan, etc.Time-based rules in access control should also be supported |
| 9 | Solution should support PBR based on parameter likes source port, destination address, destination port, protocol, applications, or a combination of these objects. Also PBR policy should rely on flexible metrics, such as round trip time, jitter, mean opinion score, and packet loss of the interfaces to identify the best routing path for its traffic |
| 10 | Should support capability to integrate with other security solutions to receive contextual information like security group tags/names |
| 11 | Should have the capability of passively gathering information about virtual machine traffic, network hosts and their activities, such as operating system, services, open ports, client applications, and vulnerabilities, to assist with multiple activities, such as intrusion event data correlation, elimination of false positives, and policy compliance. |
| 12 | Should support more than 8000 (excluding custom application signatures) distinct application signature as application detection mechanism to optimize security effectiveness and should be able to create 40 or more application categories for operational efficiency |

| 13 | Should be capable of dynamically tuning IDS/IPS sensors (e.g., selecting rules, configuring policies, updating policies, etc.) with minimal human intervention. |
|---|---|
| 14 | The firewall should be able to import/ write SNORT/ Suricata rules based on various advisories from government organizations. If the same is not available natively then the required tools should be included to achieve the same |
| 15 | Should support more than 20,000 (excluding custom signatures) IPS signatures or more. Should support capability to configure correlation rule where multiple rules/event can be combined together for better efficacy |
| 16 | Should be capable of automatically providing the appropriate inspections and protections for traffic sent over non-standard communications ports. |
| 17 | Should be able to link Active Directory and/or LDAP usernames to IP addresses related to suspected security events. |
| 18 | The solution should be able to identify, decrypt and evaluate both inbound and outbound SSL traffic on-box |
| 19 | The solution must provide IP reputation feed that comprised of several regularly updated collections of poor reputation of IP addresses determined by the proposed security vendor |
| 20 | Solution must support IP reputation intelligence feeds from third party and custom lists of IP addresses including a global blacklist |
| 21 | Should must support DNS threat intelligence feeds to protect against threats from day 1. |
| 22 | The Appliance OEM must have its own threat intelligence analysis center and should use the global footprint of security deployments for more comprehensive network protection. |
| 23 | Should be able to identify attacks based on Geo-location and define policy to block on the basis of Geo-location |
| 24 | The detection engine must incorporate multiple approaches for detecting threats, including at a minimum exploit-based signatures, vulnerability-based rules, protocol anomaly detection, and behavioral anomaly detection techniques. |
| 25 | Must support URL threat intelligence feeds to protect against threats |
| 26 | Should support Reputation- and category-based URL filtering offering comprehensive alerting and control over suspect web traffic and enforces policies on more than 280 million of URLs in more than 80 categories. |
| 27 | Solution shall have capability to analyze and block TCP/UDP protocol to identify attacks and malware communications. At minimum, the following protocols are supported for real-time inspection, blocking and control of download files: HTTP, SMTP, POP3, IMAP, NetBIOS-SSN and FTP |
| 28 | Management solution should be onprem or on cloud. |
| 29 | The firewall platform/ OS should be EAL4/ Common Criteria, IPV6 logo ready/ USGv6 certified. |
| 30 | The firewall should be able to import/ write SNORT/ Suricata rules based on various advisories from government organizations. If the same is not available natively then the required tools should be included to achieve the same |

| S.NO. | Technical Specification for Passive Networking items. |
|-------|------------------------------------------------------|
| 1 | OEM must provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 : c) ANSI/TIA 568.2-D |
| 2 | OEM must provide Lifetime Performance warranty on complete solution (Passive Component). |
| 3 | All the products must have RoHS Compliance and Fluke Testing certification for performance (Declaration Document required with Bid ) |
| 4 | All the Copper, Fiber solution and Rack should be from same OEM for better compatibility. |
| 5 | OEM Must confirm all the compliance and conformity as per specs and it will be OEM responsibility to honor the same. Technical Data Sheet as per specs should be attached with Tender for all OEM Items |
| 6 | OEM should have valid ISO9001 for Quality Management ,ISO14001 for Environmental Management Systems, ISO27001 for Information security Management and ISO45001 for Health and safety Management for Design, Development, manufacturing of Networking systems ( Valid Document required with Bid ) |
| 7 | OEM Must issue the MAF Letter in favour of this Tender to the Partner for participation and OEM support further |
| 8 | Preference will be given to the OEM with Make in India and MSME certificate. |
| 9 | User may ask for the sample for the actual quoted material to verify the specification with technical team and committee. |
| 10 | OEM Should submit Non-Blacklisting declaration Letter. |
| | **Cat 6 U/UTP Indoor Cable, LSZH Jacket, 305m Box** |
| 1 | Cat 6 UTP Cable, 23AWG (0.57) Pure solid copper Cable |
| 2 | Outer Jacket : White / Blue LSZH Jacket |
| 3 | Cable should have cross separator with Rip cord and min Dia of 6.0mm |
| 4 | Cable should be certified by ANSI/TIA 568.2-D Category 6, ISO/IEC 11801 Class E tested on 250Mhz |
| 5 | Cable should confirm to ANSI/TIA 568.2-D Category 6, ISO/IEC 11801 Class E, UL 444, PoE: IEEE 802.3af, 802.3at |
| 6 | Cable should meet Fire rating of FR-PVC: UL CM, IEC 60332-1-2, LSZH: IEC-61034, IEC 60754 |
| 7 | POE Compliance standrad IEEE 802.3af, iEEE 802.3at, IEEE 802.bt |
| 8 | Insulator : HD Polyethylene solid |
| 9 | Conductor Resistance : <9.38Ω /100m |
| 10 | Resistance Unbalance 5% Max |
| 11 | Mutual Capacitance : < 5.6nF/100m |
| 12 | Capacitance Unbalance: 330pF/100m. |
| 13 | Propagation Velocity : 69% |
| 14 | Cable should be Fluke tested. |
| 15 | Packing : 305 Mtr Reel in Box for easy pull. |

| | **19" 1U 24 port UTP Modular Loaded Patch Panel** |
|---|---|
| 1 | Patch panel should be modular design, loaded Patch Panel 4X6 TYPE, populates up to 24 UTP keystone-type jacks in 1U |
| 2 | Patch panel should be Enhanced with cable strain relief with retention tray |
| 3 | Material: it should be combination of high grade plastic and CRS metal |
| 4 | Standard : Conforms to IEC-60603-7 (603-7) for keystone-type |
| 5 | Termination should feature nil crossover in acc. with EIA/TIA 568-A/B, gold-plated 50-micron bronze contacts for >750 mating cycles, >200 insertion cycle |
| 6 | Connector should be 50-micron gold-plated and supplied with stain relief cap on back side of Jack |
| 7 | Housing material: Polycarbonate (UL-94-V0) |
| 8 | Panel should be supplied with Retention caps provides termination strain relief for stable performance |
| 9 | POE Compliance standard Meets IEEE 802.3af/802.3at and 802.3bt type 3 and 4, UPoE |
| | **Patch Cord, U/UTP Cat.6, length 1/ 2 / 3 M** |
| 1 | Standardization: Compliant with Cat.6, Class E requirements: ISO/IEC 11801 2nd Edition Compliant with Cat.6 component standards IEC 60603-7-4 and 60603-7-5 |
| 2 | Number of conductors : 8 |
| 3 | Stranding: 7 x 0.20 mm (24 AWG) |
| 4 | Cable jacket characteristics: cable, metal-free |
| 5 | Cable overall diameter: 6.0±0.2 mm |
| 6 | Tube / Wire type: stranded conductor |
| 7 | Plug: Feature cable retention, with enhanced pull strength. |
| 8 | Cat 6 patch cord plug to have round cable holder and strain relief snagless boot to avoid bending. |
| 9 | Jacket: LSZH with different colour ( Grey,Blue,Yellow,Green ) and Size options |
| 10 | Plug should have high repeatability cross talk performance with Cat 6 50-micron Gold plating connector plug |
| 11 | Patch cord connector should be 50-micron gold plating plug |
| 12 | Patch Cord should be available in 0.5 / 1 / 2 / 3 / 5 Mtr Length as factory manufactured. |
| | **Cat 6 UTP RJ 45 Keystone Jack with Faceplate and SMB** |
| 1 | RJ45 Jack of Category 6, for the establishing of transmission channels of class E with up to 4 plugged connections, complies with Category 6A requirements of the standards ISO/IEC 11801:2nd edition, EN 50173-1, DIN EN 50173-1: 2002 as well as ANSI/TIA/EIA 568-B.2-1, de-embedded tested in acc. with IEC 60603-7 (603-7), interoperable and backwards compatible with Cat.5e and Cat.5, Cat 6 |
| 2 | Compatible with RJ standard plugs (RJ11, RJ12, RJ45), PCB and with tool Less connection of installation cables AWG 24 – 22 (0.5 mm – 0.65 mm) and flexible cables AWG 26/7 – AWG 22/7. |

| | |
|---|---|
| 3 | Termination should feature nil crossover in acc. with EIA/TIA 568-A/B, gold-plated 50micron bronze contacts for >750 mating cycles, >200 insertion cycle |
| 4 | Connector should be 50 micron gold-plated |
| 5 | Material: RoHS complied |
| 6 | Housing material: Polycarbonate (UL-94-V0 / UL-94-V2 ) |
| 7 | Jack Should be available with dust protection feature |
| 8 | Keystone Jack should be Punch Down Type |
| 9 | Faceplate  Should be UK style 86x86  , Front  Access, 3  Part  available in 1  &  2 port configurations |
| 10 | Should be featured with transparent shutter, the screws should not to be visible, it should be concealed Facia Type |
| 11 | Should support Operating Temperature:       -10~+60; Storage Temperature:       -40~+68; Humidity: 10%~90% RH |
| 12 | Material: ABS, UL 94V-0; Surface Finish: Polished |
| 13 | Faceplate should be supplied with same OEM PVC Back Box of 42mm depth for easy han dling of Cable. |
| 14 | PVC SMB Should be supplied with required assecories like Nuts and Gitti |
| | **OS2 10G Ready Unitube Armoured Fiber Cable** |
| 1 | 6 Core FO Cable, SLT-MM, ECCS Armoured, Outdoor, Unitube Type |
| 2 | SM-OS2 compatible with all fiber passive and active components |
| 3 | Outder Jacket : Black HDPE |
| 4 | Peripheral Strength Member - 2 FRP Rod |
| 5 | Armouring - ECCS Armouring 0.150mm |
| 6 | Water / Moisture Barrier - Thixotropic Gel with Moisture Blocking Tape |
| 7 | Outer Dia and Weight - Min 8mm , 75 KG |
| 8 | Tensile Strength - 1000N , Crush - 2000N |
| 9 | Fiber should be 10G ready from day one |
| | **24 Core Fixed Type LC LIU / Fiber Termination Box** |
| 1 | LIU Should be Rack mount, Fixed Type with Top cover removable to ensure clear internal access is available and maintained while terminating |
| 2 | Rugged powder coated aluminium and steel construction ensures product durability with Charcoal Grey Powder Coated |
| 3 | Should support Range of adapter plate SC,LC,FX etc options to suit a broad variety of fibre types and adapter styles |
| 4 | LIU should be supporting to terminate 24 Fiber Core  , 1RU,  Top cover removable for easy installation. |
| 5 | LIU should be supplied with 24 Core Splice Tray and Cable spool , Cable Ring Loaded |
| 6 | LIU should be Loaded with Adapter Plate of 12 Duplex SM UPC LC Adapter and Blank Plate |
| 7 | it should be Loaded with 24 LC LSZH 0.9mm OS2  buffered fiber Pigtails of 1 meter |
| 8 | Empty slot should be covered with Blank Plate |
| 9 | Pigtails should support IEC 60793-2-50, ITU-T G.652.D/G.657.A1/G.657.A2 |

| | |
|---|---|
| 10 | Pigtail should support support Fire standard IEC 60332-1, IEC 60754 & IEC 61034 |

| | **6 Core Fixed Type LC LIU / Fiber Termination Box** |
|---|---|
| 1 | LIU Should be Rack mount, Fixed Type with Top cover removable to ensure clear internal access is available and maintained while terminating |
| 2 | Rugged powder coated aluminium and steel construction ensures product durability with Charcoal Grey Powder Coated |
| 3 | Should support Range of adapter plate SC,LC,FX etc options to suit a broad variety of fibre types and adapter styles |
| 4 | LIU should be supporting to terminate 6 Fiber Core , 1RU, Top cover removable for easy installation. |
| 5 | LIU should be supplied with 12 Core Splice Tray and Cable spool , Cable Ring Loaded |
| 6 | LIU should be Loaded with Adapter Plate of 03 Duplex SM UPC LC Adapter and Blank Plate |
| 7 | it should be Loaded with 6 LC LSZH 0.9mm OS2 buffered fiber Pigtails of 1 meter |
| 8 | Empty slot should be covered with Blank Plate |
| 9 | Pigtails should support IEC 60793-2-50, ITU-T G.652.D/G.657.A1/G.657.A2 |
| 10 | Pigtail should support support Fire standard IEC 60332-1, IEC 60754 & IEC 61034 |

| | **LC-LC Duplex OS2 LSZH Patch cord** |
|---|---|
| 1 | Fiber Patch cord Should have Duplex 2.0 x 4.2mm LC-LC UPC Connector on both end |
| 2 | Patch Cord should support IEC 60793-2-50, ITU-T G.652.D/G.657.A1/G.657.A2 |
| 3 | Patch Cord should support support Fire standard IEC 60332-1, IEC 60754 & IEC 61034 |
| 4 | Patch Cord Jacket should be LSZH Type material |
| 5 | End face geometry - IEC 61755-3-1 (UPC/PC) |
| 6 | FO system should support ANSI/TIA-568.3-D, ISO/IEC 11801, TIA-598-D |
| 7 | Length - 1 & 3 Meter |

| | **12U Wall mount Rack with accessories as per specifications** |
|---|---|
| 1 | Racks manufactured out of steel sheet punched, formed, welded and Powder coated |
| 2 | Standard for Racks configuration will be welded frame with Integrated side panel and vented top cover |
| 3 | Rack should have Front toughened Glass door |
| 4 | Rack should have provision to mount racks on Wall |
| 5 | Rack should be 12U (1U = 44.45 mm) in Height. |
| 6 | It should be minimum 550MM Wide & 600MM Deep |
| 7 | Rack should Conforms to DIN 41494, IEC 60297 or Equivalent EIA /ISO / EN/CEA Standard |
| 8 | Rack should have Adjustable mounting depth |

| | |
|---|---|
| 9 | Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| 10 | Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment) |
| 11 | Powder coated finish with seven Tanks pre-treatment process meeting IS |
| 12 | Rack should have two Cable Manager, PVC Finger Duct w/ Removable Cover, 19", 1U, 60mm, Black |
| 13 | Rack should have Fan module Mount Provision on top Cover with minimum 2 no. 180 CFM Fan |
| 14 | Rack should have one Server /IT Rack mount power distribution unit, 1Ph, 230V, 16A, 50/60Hz, 2U standard with 6 X Indian Round Pin 5/15A, Inlet Plug type 16A Indian Round Pin, 16A MCB - PDU Rating 3.7KVA/Side feed-1.8Mt/ Black |
| 15 | Rack should have provision for cable entry Exit from Both top & Bottom. |
| 16 | Rack should have 1 Packet of mounting hardware, Pack of 10. |
| | **9U Wall mount Rack with accessories as per specifications** |
| 1 | Racks manufactured out of steel sheet punched, formed, welded and Powder coated |
| 2 | Standard for Racks configuration will be welded frame with Integrated side panel and vented top cover |
| 3 | Rack should have Front toughened Glass door |
| 4 | Rack should have provision to mount racks on Wall |
| 5 | Rack should be 9U (1U = 44.45 mm) in Height. |
| 6 | It should be minimum 550MM Wide & 600MM Deep |
| 7 | Rack should Conforms to DIN 41494, IEC 60297 or Equivalent EIA /ISO / EN/CEA Standard |
| 8 | Rack should have Adjustable mounting depth |
| 9 | Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| 10 | Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment) |
| 11 | Powder coated finish with seven Tanks pre-treatment process meeting IS |
| 12 | Rack should have two Cable Manager, PVC Finger Duct w/ Removable Cover, 19", 1U, 60mm, Black |
| 13 | Rack should have Fan module Mount Provision on top Cover with minimum 2 no. 180 CFM Fan |
| 14 | Rack should have one Server /IT Rack mount power distribution unit, 1Ph, 230V, 16A, 50/60Hz, 2U standard with 6 X Indian Round Pin 5/15A, Inlet Plug type 16A Indian Round Pin, 16A MCB - PDU Rating 3.7KVA/Side feed-1.8Mt/ Black |
| 15 | Rack should have provision for cable entry Exit from Both top & Bottom. |
| 16 | Rack should have 1 Packet of mounting hardware, Pack of 10. |

| | 42U Floor standing Rack with accessories as per specifications |
|---|---|
| 1 | Racks manufactured out of steel sheet punched, formed, Powder coated and in CKD form |
| 2 | Standard for Racks configuration will be frame, side panels and vented top cover in CKD form |
| 3 | Rack should have Front Glass Door and Rear Steel door (Vented). |
| 4 | Rack should have 2 nos of removable side panel with slam latch. |
| 5 | Rack should have provision to mount racks on Floor |
| 6 | Rack should be 42U (1U = 44.45 mm) in Height. |
| 7 | It should be 600MM Wide,1000MM Deep and Overall height 2000 MM. |
| 8 | Rack should Conforms to DIN 41494 or Equivalent EIA /ISO / EN Standard |
| 9 | Rack should have Adjustable mounting depth, |
| 10 | Rack 4 No Adjustable, 19" verticals with Punched 9mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| 11 | Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment) |
| 12 | Powder coated finish with seven Tanks pretreatment process meeting IS |
| 13 | Rack should have Proper Grounding & Bonding |
| 14 | Rack should have Fan module Mount Provision on top Cover |
| 15 | Rack should have Fan tray with 4 no's 90 CFM Fan |
| 16 | Rack should have two Fixed shelf with 700mm depth for mounting NON-Rack mountable equipment |
| 17 | Rack should have two Horizontal Cable manager - PVC Finger Duct w/ Removable Cover,19", 1U, 60mm, |
| 18 | Rack should have two Server /IT Rack mount power distribution unit, 1Ph, 230V, 16A, 50/60Hz, 1U standard with 12 Socket x IEC C13, Inlet Plug type 16A Indian Round Pin, 16A MCB - PDU Rating 3.7KVA/Side feed-2.5Mt/ Black |
| 19 | Rack should have provision for cable entry Exit from both top & bottom. |
| 20 | Rack should have 1 Packet of mounting hardware, Pack of 20. |

B :- **Video Conferencing Setup.**

The VC must be a sophisticated video bar designed to enhance video conferencing experiences, particularly in large-size conference rooms. The key features and capabilities of the VC are given below:-

Features and Capabilities:

- Cameras: Dual 4K 20MP cameras with a 70-degree and 120-degree horizontal field of view, ideal for capturing large rooms.

- Audio: High fidelity audio powered by built-in microphones that capture sound within 7.62 meters (25 feet). It includes technologies like Poly Acoustic Fence to reduce background noise.

- Microphone Support: Supports Poly IP microphones using the link local network (LLN) port, and Expansion Microphones via the RJ11 Poly Expansion microphone port.

- Noise Block AI v2: Eliminates background noises, reverberations, and extraneous sounds.
- Director AI: Features smart camera framing technology with perimeter, group, speaker, and people framing.
- Wireless Content Sharing: Allows sharing using Airplay or Miracast, along with wired HDMI options.
- Mounting Options: Includes a wall mount, with additional options like a VESA mount or tabletop stand available. Note that inverted mounting is not supported.

**Ports:**

- HDMI Output: Ports available for connecting primary and secondary monitors.
- USB Ports: Includes USB-A for peripherals and a USB Type-C port designated for device mode only.
- Audio Connectivity: 3.5 mm audio line-in and line-out options for external audio devices.
- Network Connectivity: LAN connection for internet access and LLN connections for IP-based peripherals.

**Privacy Shutter Behavior:-**

The privacy shutter automatically opens and closes depending on the system state. It closes during sleep mode and opens when the system is active or in a call.
For further detailed information, please refer to the provided PDF resource.

**Interactive Flat panel with OPS (CORE i7 13<sup>th</sup> Generation):-**

| 1 | Screen Size | 86" or Higher |
|---|---|---|
| 2 | Native Resolution | 3840 x 2160 (UHD) |
| 3 | Brightness | Minimum 440cd/m2 |
| 4 | Contrast Ratio | 1,100:1 or Higher |
| 5 | Viewing Angle (H x V) | 178 x 178 |
| 6 | Surface Treatment | Anti-glare treatment or similar |
| 7 | Min Input ports | HDMI x3(with HDCP 2.2), VGA x 1, USB 3.0 x 4, USB 2.0 x1, USB (Type C x1 with power delivery and DP Alt Mode), OPS Slot x 1 |
| 8 | Min Output Ports | Audio-1 (Audio out to connect additional Speakers if required), Optical SPDIF x1, HDMI-1, Touch Out USB x 2 |
| 9 | External Control | RS232C, RJ45 input and output both |
| 10 | Built in Touch type | IR spread /P Cap/Incell/ In glass |
| 11 | Touch Accuracy | ±1mm or less |
| 12 | Air Gap Between LCD Module & Glass | Minimum 1 mm or less |
| 13 | Protection Glass Thickness | 3T (Anti-Glare) or Higher |
| 14 | Operating System Support | Windows 7/8/10/Windows XP/Linux/Mac/Android |
| | | (Windows XP/Linux/Mac Support one point touch) |
| 15 | Multi touch point | Min 40 Points or Higher |
| 16 | Google CTS | Compatible/Approved to smooth interface |
| 18 | Interactive Features | ·        White Board & Standard Interactive features |
| | | ·     Writing, Pen, |
| | | ·     Palm Eraser , |
| | | ·     Screen Capture, |
| | | ·     Storage, |
| | | ·     Tool Bar, |
| | | ·     Air Class for Online test/Quiz, |
| | | ·     USB Block feature for safety |
| | | ·     Dual Pen support |
| | | ·     Bluetooth  connectivity |
| 18 | Built in Standard OS | Android 13.0 (EDLA) or better |

| | | |
|---|---|---|
| 19 | Key Hardware Features | Minimum Internal Memory (64GB), Quad core A55 , GPU-Mali G52MP2,  RAM DDR 8GB or higher, USB Block, Anti Glare Coating on glass surface, 7 Mohs and 9H Hardness, Haze 25% |
| 20 | Key Software Features | Screen Share/Mira cast to Connect TAB/Mobile, Web Browser ,Wi-Fi, Apple Airplay inbuilt, Booting Logo Image Change Option, Able to connect and show upto 9 devies wirelessly on screen, DMS software option from same OEM of display, PIP, PBP, Wake on LAN, Able to open and work on minimum 4 applications side by side on one screen at a time. |
| 22 | PCB Protective Coating | Conformal Coating on PCB to prevent from Humidity , Dust & Iron Particles |
| 23 | Power Supply | 100-240V~,  50/60Hz |
| 24 | Power Consumption (Typ.) | 225W  or less |
| 24 | Built in Audio Power | 30W(15W x 2) or higher |
| 25 | Product Quality Certifications | BIS,ISO9001,ISO14001,ISO45001 |
| 26 | Accessory | Remote Controller(include battery 2ea), Power Cord, QSG, Regulation Book, Touch Pen(2) |
| 27 | Warranty | 3 years |
| 28 | Bracket | Wall mount |

## C. - DESKTOP PC ;-

| 1 | Processor | 14th Gen or higher Intel Core Ultra 7 (4.9 GHz and above) |
|---|---|---|
| 2 | Chipset | Intel H  or higher Series |
| 3 | Motherboard | OEM Motherboard with logo embossed (no sticker) |
| 4 | Memory | 16  GB DDR5-4800 UDIMM NECC upgradable Upto 64 GB |
| 5 | Hard Disk Drive | 512 GB SSD M.2 |
| 6 | Graphics | Intel Integrated  770 Graphics or higher |
| 7 | Audio | High Definition Integrated Audio with Internal Speaker |
| 8 | Ethernet | Integrated Gigabit (10/100/1000) Gbe LAN |
| 9 | Slots | 1) PCI Express 4.0 x16<br>(1) PCI Express 3.0 x1<br> (1) M.2 for WLAN<br>(1) M.2 2242/2280 storage |
| 10 | Bays | 2) 3.5"<br>(1) 9.5mm internal optical drive bay |
| 11 | Ports | **Front**<br>Combo jack, Headphone/ Microphone<br> ( 5 ) 3.1  USB  port. (1) Type C.<br>**Rear**<br>Audio Line out & Audio Line in , RJ-45 Network Port<br>HDMI Port ,  (2) USB 2.0  port or higher |
| 12 | Form Factor | Tower |
| 13 | Power Supply | Max 350 W  with 90 % efficiency |
| 14 | Wired Keyboard/Mouse | USB 104 keys keyboard (Same make as PC)<br>USB  Scroll Mouse (Same make as PC) |
| 15 | Operating System | Windows 11 Professional ( Preloaded ) |
| 16 | Diagnostic Tool | OEM must have online system hardware diagnostics facility |
| 17 | Security | TPM 2.0 Security<br>SATA port disablement (via BIOS)<br>USB enable/disable (via BIOS)<br>Power-On password (via BIOS)<br>Administrator password (via BIOS)<br>Setup password (via BIOS)<br>Support for chassis padlocks and cable lock devices |

| 18 | Compliance And Certification | Energy Star , EPEAT , FCC, RoHS Certificate Windows certificate ( all certificate need to upload ) ISO 9001, 14001,20001,27001 for OEM ( certificate to upload ) |
|---|---|---|
| 19 | Information Accessibility | Product details, specifications and brochure to be available in public domain |
| 21 | Monitor ( Datasheet need to upload ) | 21.5" IPS Monitor or higher with below spec of Same OEM Brightness should be min 250 nits Port :- 1 HDMI , 1 VGA TCO 7.0 or higher , Energy star Certified  (certificate need to upload ) |
| 22 | Warranty |  3 Years On-site comprehensive warranty (Parts, Labor, and On-site repair). |

**Terms and Conditions;-**

1) All the mentioned certificate should be upload along with Technical specification & product datasheet
2) Technical Specification: Offered materials should be strictly in line of BOQ
3) OEM should be in Top 3 IDC List (Certificate should be upload)
4) Facility for downloading updates of pre-installed software and drivers must be available via OEM website. Mention website address.
5) Bidder should upload OS Genuity.
6) Technical Compliances should be on OEM Letter head.
7) OEM / Bidder should have service center at consignee location. (upload Service center details)
8) Bidder should clearly mention the Make & model no of Desktop & Monitor
   (Make of CPU & Monitor should be from Same OEM): -
   Desktop Make & Model No:-
   Monitor Make & Model No:-

**Certify that BID Documents has total 43 ( Forty Three) PAGES**


*************************** **End of Bidding Document**  ***********************