

# **Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur**

**KHYBER PAKHTUNKHWA**

## **Tender Document For “Supply, Installation/ Deployment & Commissioning of SPCAI Building Network (Wired and Wireless)/Data Center Expansion, IP Surveillance & RFID Solution”**

**Submission of Bids: Friday the April 22, 2022 @ 11:00 am**

**Opening of Bids: Friday the April 22, 2022 @ 11:30 am**

## Contents

Section 1. Letter of Invitation.....	3
Section 2. Instruction to Bidders (ITB) .....	4
A. GENERAL TERMS .....	4
B. PREPARATION OF BIDS.....	5
C. SUBMISSION AND OPENING OF BIDS.....	8
D. EVALUATION OF BIDS.....	10
E. AWARD OF CONTRACT .....	12
Section 3. Bid Data Sheet .....	14
Section 4. Evaluation Criteria .....	17
Preliminary Examination Criteria .....	17
Minimum Eligibility Criteria.....	17
Section 5a: Technical Specifications of the Required Goods .....	21
Section 5b: Special Terms and Conditions .....	35
Section 6: Returnable Bidding Forms / Checklist .....	37
Form A: Bid Submission Form .....	38
Form B: Joint Venture/ Consortium/ Association Information Form.....	39
Form C: Bidder Information Form .....	40
Form D: Qualification Form.....	42
Form E: Technical Proposal Form.....	44
Form F: Specifications Compliance Form .....	46
Form G: Price Schedule Form .....	43
Annex – I: Integrity Pact .....	45
Annex – II: Draft Contract Sample.....	46

## Section 1. Letter of Invitation

The Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF- IAST), Haripur invites sealed bids from interested Reputed firms/ companies for the “Supply, Installation/ Deployment & Commissioning of SPCAI Building Network (Wired and Wireless) & IP Surveillance” comprising of following Lots:

COMPONENTS	Description	Quantity
Lot #01	Building Network (Wired & Wireless)	700 Nodes & 65 APs
Lot #02	Building Security (IP Surveillance)	60 Cameras
Lot#03	Enhancement of Modular Data Center	04 Racks (Expandable)
Lot#04	RFID Base Access Control Solution	14 Blocks

The bidder must be registered and duly recognized in Pakistan, and be registered with FBR for Tax purposes; possess Manufacturer’s status or Distributor/ Dealer status with authorization from Manufacturer/ Principal specific for this tender, with sufficient financial, technical and human resources to take up the task assigned and complete the same within prescribed time limit on the finalization of contract with PAF-IAST.

Tender document containing instructions to bidders covering definitions, introduction/ background of the Project, scope of work, general terms and conditions, and special terms, procedure for submission of bids, opening of bid, evaluation criteria, technical specifications, functional requirements and other related information, can be obtained against a written request on company’s letterhead, from Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur – Pakistan. Cost of the document is Rs. 1000/- Non-refundable (Stationery charges) for each LOT separately. Tender document can also be downloaded from <http://www.paf-iaست.edu.pk/> free of cost, however, the Bid should also be submitted along with Pay Order/ Demand Draft of Rs. 1000/- (Stationery Charges). No bid will be accepted without Tender Document fee.

Bidder(s) interested in participating in the tender process are advised to submit their Bid Proposal(s), along with the Earnest Money amounting 2% of their Bid Value in the shape of CDR, in accordance with the instructions in this tender document. Bid Proposal(s) must reach PAF-IAST, Haripur on Friday the April 22, 2022 by 1100 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 1130 hrs, in presence of bidders who chose to attend. In case of sudden holiday on bid opening day, bids will be opened on next working day. The Tender shall be executed in accordance with PPRA Rule 36(b) “Single Stage, Two Envelope Procedure”.

This advertisement is also available on PAF: IAST and PPRA websites <http://www.paf-iaست.edu.pk/> & <http://www.ppra.gov.pk>

**Project Director**

**Sino-Pak Center for Artificial Intelligence (SPCAI)**

**Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF-IAST), Mang**

**Hairpur – Khyber Pakhtunkhwa**

**Phone:0995-931610**

**E-Mail: [info@spcai.paf-iaست.edu.pk](mailto:info@spcai.paf-iaست.edu.pk)**

## Section 2. Instruction to Bidders (ITB)

A. GENERAL TERMS	
1. Introduction	<p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by PAF-IAST. This ITB will be governed under Clause 36(b) "Single Stage, Two Envelope Procedure" of Public Procurement Regulatory Authority, Government of Pakistan.</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by PAF-IAST. The Institute is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 PAF-IAST reserves the right to cancel the procurement process at any stage without any liability of any kind for PAF-IAST, upon notice to the bidders or publication of cancellation notice on PAF- IAST website.</p>
2. Fraud & Corruption, Gifts and Hospitality	<p>2.1 PAF-IAST strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of PAF-IAST vendors and requires all bidders/ vendors observe the highest standard of ethics during the procurement process and contract implementation.</p> <p>2.2 Bidders/ vendors shall not offer gifts or hospitality of any kind to PAF-IAST staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, PAF-IAST:</p> <p>(a) Shall reject a bid if it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for the tender in question;</p> <p>(b) Shall declare a bidder ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for, or in executing any contract; or counseling or canvassing staff or elected representatives; or engaging in collusion with other bidders.</p>
3. Eligibility	<p>3.1 A Bidder should not be suspended, debarred, or otherwise identified as ineligible by any Government/ Semi-government/ or any other international Organization. Bidders are therefore required to disclose to PAF-IAST whether they are subject to any sanction or temporary suspension imposed by these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, sub-contractors, service providers, suppliers and/ or their employees meet the eligibility requirements as established by PAF-IAST.</p>
4. General Terms	<p>4.1 The Bidder should be registered with FBR for Sales Tax and Income Tax.</p> <p>4.2 The Bidder should have not been blacklisted by any Government/ semi Government organization.</p> <p>4.3 There should be no litigation against the bidder/ firm.</p>

<b>B. PREPARATION OF BIDS</b>	
5. General Considerations	<p>5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.</p> <p>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the Project Director, PAF-IAST accordingly.</p>
6. Cost of Preparation of Bid	6.1 The Bidder shall bear all costs related to the preparation and/ or submission of the Bid, regardless of whether its Bid is selected or not. PAF-IAST shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1 The Bid, as well as any, and all related correspondence exchanged by the Bidder and PAF- IAST, shall be written in the language(s) specified in the BDS.
8. Documents Comprising the Bid	<p>8.1 The Bid shall comprise of the following documents and related forms of which details are provided in the BDS. All pages of the Bid shall be signed, stamped and properly paginated.</p> <p>a) Returnable Forms as referred in Section 6 shall be properly filled in Ink or Typed. Forms filled in using a pencil shall not be considered and substantiate the annulment of the Bid Proposal.</p> <p>b) Documents Establishing the Eligibility and Qualifications of the Bidder;</p> <p>c) Bid covering Technical Specifications in detail, and covering Price Schedule;</p> <p>d) Bid Security, if required by BDS;</p> <p>e) Any attachments and/ or appendices to the Bid.</p>
9. Documents Establishing the Eligibility and Qualifications	9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified supplier, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to PAF-IAST's satisfaction.
10. Technical Bid Format and Content	<p>10.1 The Bidder is required to submit a Bid using the Standard Forms and templates provided in Section 6 of the ITB.</p> <p>10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the Institute. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.</p> <p>10.3 When applicable and required in Section 5, the Bidder shall describe the necessary training program available for the maintenance and operation of the equipment offered as well as the cost to the Institute. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.</p> <p>10.4 When applicable and required in Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.</p>
11. Price Schedule	<p>11.1 The Price Schedule shall be prepared using the Forms provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.</p> <p>11.2 Any requirement described in this ITB but not priced in the Price Schedule, shall be assumed to have been included in the prices of other activities or items, as well as in the final total price.</p>

12. Bid Security	<p>12.1 A Bid Security shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for the duration as referred in BDS.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security not found in the Bid, the Bid shall be rejected.</p> <p>12.3 If the Bid Security amount or its validity period is found to be less than what is required, PAF-IAST shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security will be forfeited by PAF-IAST, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> <li>a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or;</li> <li>b) In the event the successful Bidder fails: <ul style="list-style-type: none"> <li>i. to sign the Contract after PAF-IAST has issued an award; or</li> <li>ii. to furnish the Performance Security, insurances, or other documents that PAF-IAST may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.</li> </ul> </li> </ul>
13. Currencies	<p>13.1 All prices shall be quoted in the currency indicated in the BDS. Where prices are quoted in different currencies, for the purposes of comparison:</p> <ul style="list-style-type: none"> <li>a) PAF-IAST will convert the currency quoted into the currency indicated in BDS, in accordance with the prevailing Inter Bank rate of exchange on the last day of submission of Bids; and</li> <li>b) In the event that PAF-IAST selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, PAF-IAST shall reserve the right to award the contract in the currency of PAF-IAST's preference, using the conversion method specified above.</li> </ul>
14. Joint Venture or Consortium	<p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid, if allowed in Bid Data Sheet, that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by an intent letter or an Agreement among the legal entities duly notarized, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between PAF-IAST and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association Or any change in the constitution of the JV, Consortium or Association shall not be altered without the prior written consent of PAF-IAST/ Procurement Committee.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 15 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement or Intent Letter. If allowed in this Tender document/</p>

	<p>RFP, all entities that comprise the JV, Consortium or Association shall be cumulatively subject to the eligibility and technical qualification assessment by PAF-IAST as defined in Section 4: Evaluation Criteria.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:</p> <ul style="list-style-type: none"> <li>a) Those that were undertaken together by the JV, Consortium or Association; and</li> <li>b) Those that were undertaken by the individual entities of the JV, Consortium or Association.</li> </ul> <p>14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.</p>
15. Only One Bid	<p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> <li>a) they have at least one controlling partner, director or shareholder in common; or</li> <li>b) any one of them receive or have received any direct or indirect subsidy from the other/s; or</li> <li>c) they have the same legal representative for purposes of this ITB; or</li> <li>d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.</li> </ul>
16. Bid Validity Period	<p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by PAF-IAST and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel.</p>
17. Extension of Bid Validity Period	<p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, PAF-IAST may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p>

18. Clarification on ITB (from the Bidders)	<p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a PAF-IAST staff member, PAF-IAST shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 PAF-IAST will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 PAF-IAST shall endeavor to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of PAF-IAST to extend the submission date of the Bids, unless PAF-IAST deems that such an extension is justified and necessary.</p>
19. Amendment in ITB	<p>19.1 At any time prior to the deadline of Bid submission, PAF-IAST may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, PAF-IAST may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>
20. Alternative Bids	<p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, PAF-IAST reserves the right to award a contract based on an alternative Bid.</p> <p>20.2 If multiple/ alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>
21. Pre-Bid Conference	<p>21.1 When appropriate, a pre-bid conference may be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Nonattendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and/ or shared by email as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/ posted as an amendment to ITB.</p>

### C. SUBMISSION AND OPENING OF BIDS

22. Bid Proposal Submission	<p>22.1 The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with <b>PPRA Rule 36(b)</b>.</p> <p>22.2 The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the <b>Forms (A – F) and supporting documents</b> in accordance with requirements in the BDS, shall be marked as <b>"Technical Proposal"</b>. Whereas, the other envelope containing the <b>Form G: Price Schedule Form</b> shall be marked as <b>"Financial Proposal"</b>.</p> <p>22.3 The Bid Security as referred in BDS must be placed in the <b>"Financial Proposal"</b> but in duly sealed envelope and marked as <b>"Bid Security"</b>. However, an Affidavit stating that the Bid Security (without indicating the amount) has been placed in the Financial Proposal, should be enclosed in <b>"Technical Proposal"</b>. Bid Security envelope will be opened with financial proposal of Technically qualified bidders.</p>
-----------------------------	---



	<p>22.4 Bid can be delivered by courier/ hand delivered as specified in the BDS.</p> <p>22.5 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid. There should not be errors and/ or over-writings. Corrections (if any) should be made clearly and initialed with dates.</p> <p>22.6 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the General Contract Terms and Conditions.</p> <p>22.7 Hard copy submission by courier allowed or as specified in the BDS shall be governed as follows:</p> <p>a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p>(b) The Bid Proposals must be sealed and submitted in an envelope, which shall:</p> <ul style="list-style-type: none"> <li>i. Bear the name of the Bidder;</li> <li>ii. Be addressed to PAF - IAST as specified in the BDS; and</li> <li>iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS.</li> </ul> <p>If the envelope with the Bid is not sealed and marked as required, PAF-IAST shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p>
23. Deadline for Submission of Bids and Late Bids	<p>23.1 Complete Bids must be received by PAF-IAST in the manner, and no later than the date and time, specified in the BDS. PAF-IAST shall only recognize the actual date and time that the bid was received by PAF-IAST.</p> <p>23.2 PAF-IAST shall not consider any Bid that is received after the deadline for the submission of Bids.</p>
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 A bidder may withdraw, substitute or modify its Bid by sending a written notice to PAF- IAST, duly signed by an authorized representative, including a Power of Attorney. The corresponding substitution or modification of the Bid, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 Bids requested to be withdrawn shall be returned unopened to the Bidders, except if the bid is withdrawn after the bid has been opened.</p>
25. Bid Opening	<p>25.1 The Procurement Committee of PAF- IAST will open the Bid in the presence of Bidders' representative(s) who choose to attend.</p> <p>25.2 The Bidders' names, modifications, withdrawals, the condition of the envelope labels/ seals, the number of folders/ files and all other such other details as PAF-IAST may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p>25.3 In case of public holiday on bid opening day, bids will be opened on next working day.</p>

## D. EVALUATION OF BIDS

26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders, even after publication of the contract award.</p> <p>26.2 Any effort by a Bidder to influence PAF-IAST in the examination, evaluation and comparison of the Bids or contract award decisions may, at PAF-IAST's decision, result in the rejection of its Bid and may subsequently be subject to consequences.</p>
27. Preliminary Examination	<p>27.1 PAF-IAST shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. PAF-IAST reserves the right to reject any Bid at this stage.</p>
28. Evaluation of Eligibility and Technical Qualification	<p>28.1 Eligibility and Technical Qualification of the Bidder will be evaluated against the Minimum Eligibility/ Qualification requirements specified in the Section 4: Evaluation Criteria.</p> <p>28.2 In general terms, Bidders that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> <li>a) They are not included in the list of blacklisted or barred companies published on PPRA website, federal or any provincial government department;</li> <li>b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,</li> <li>c) They have the necessary experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/ or services required;</li> <li>d) They are capable to comply fully with the General Terms and Conditions of Contract;</li> <li>e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; and</li> <li>f) They have a record of timely and satisfactory performance with their clients.</li> </ul>
29. Evaluation of Bid Proposals	<p>29.1 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the schedule of requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, PAF-IAST may invite technically responsive bidders for a presentation related to their Bids. The conditions for the presentation shall be provided in the bid document where required.</p>
30. Due diligence	<p>30.1 PAF- IAST reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> <li>a) Verification of accuracy, correctness and authenticity of information provided by the Bidder;</li> <li>b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;</li> <li>c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder;</li> <li>d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of</li> </ul>

	<p>previous works, as deemed necessary;</p> <p>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</p> <p>f) Other means that PAF-IAST may deem appropriate, at any stage within the selection process, prior to declaring the Bidder as Qualified.</p>
<b>31. Clarification of Bids</b>	<p>31.1 To assist in the examination, evaluation and comparison of Bids, PAF- IAST may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>31.2 PAF- IAST's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by PAF-IAST in the evaluation of the Bids in accordance with the ITB.</p> <p>31.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by PAF-IAST, may not be considered during the review and evaluation of the Bids.</p>
<b>32. Responsiveness of Bid</b>	<p>32.1 PAF-IAST's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>32.2 If a bid is not substantially responsive, it may be rejected by PAF-IAST and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.</p>
<b>33. Right to Accept, Reject, Any or All Bids</b>	<p>33.1 PAF-IAST reserves the right to accept or reject any proposal in response to the ITB, to render any or all of the proposals as non-responsive, and to reject all Proposals in response to the ITB at any time prior to award of contract, while assigning the reason(s) thereof.</p> <p>33.2 PAF- IAST shall not be obliged to award the contract to the lowest priced offer.</p>
<b>34. Nonconformities, Repairable Errors and Omissions</b>	<p>34.1 Provided that a Bid is substantially responsive, PAF-IAST may waive any nonconformities or omissions in the Bid that, in the opinion of PAF-IAST, do not constitute a material deviation.</p> <p>34.2 PAF-IAST may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>34.3 For the Price Schedule that are submitted, PAF-IAST shall check and correct arithmetical errors as follows:</p> <p>a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of PAF-IAST there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected;</p> <p>b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and</p> <p>c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an</p>

	<p>arithmetic error, in which case the amount in figures shall prevail.</p> <p>34.4 If the Bidder does not accept the correction of errors made by PAF- IAST, its Bid shall be rejected.</p>
35. Bidder Grievance	35.1 PAF- IAST's grievance readdress procedure provides an opportunity for appeal to those bidders or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the Bidder may lodge a complaint to the PAF-IAST's Grievance Readdress Committee.
<b>E. AWARD OF CONTRACT</b>	
36. Evaluation	<p>36.1 PAF-IAST will conduct the evaluation solely on the basis of response to this tender received from the firms.</p> <p>36.2 Evaluation shall be undertaken in the following steps:</p> <ul style="list-style-type: none"> <li>a) Preliminary Examination including Technical Specifications and other compliances</li> <li>b) Arithmetical check and ranking of bidders who passed preliminary examination by price.</li> <li>c) Evaluation of prices</li> </ul> <p>36.3 Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable)</p>
37. Integrity Pact	37.1 Bidders will also be required to submit a signed Integrity Pact on a stamp paper of appropriate value as part of their response. The text of Integrity Pact is available at Annex – I.
38. Award Criteria	<p>38.1 Prior to expiration of the period of Proposal validity, PAF-IAST shall award the contract to the Bidder that is found to be responsive to the requirements of the Technical Specifications and has offered the lowest price.</p> <p>38.2 PAF-IAST shall not be obliged to award the contract to the lowest priced offer, if the response is found deficient to the Technical Specifications and other compliances.</p> <p>38.3 In case of tie in Financial Bid Value, the Contract will be awarded to the bidder having closest match to the Technical Specifications.</p>
39. Contract Signing	<p>39.1 After the approval of any Work Award, a Contract Agreement on the stamp paper of appropriate value, shall be executed by PAF-IAST with Selected Bidder (i.e. Contractor) within 07 days from the date of issuance of Lol (Letter of Intent)/ Work Order.</p> <p>39.2 Failure to signing of Contract Agreement by the selected Bidder/ Firm with PAF-IAST within the stipulated time may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, PAF- IAST may award the Contract to the Second highest rated or call for new Proposals.</p>
40. Right to Vary quantity at the Time of Award	40.1 At the time of award of Contract, PAF-IAST reserves the right to vary the quantity of goods and/ or services, without any change in the unit price or other terms and conditions.
41. Sample draft Contract	41.1 A sample draft Contract to be signed, containing applicable General Terms and Conditions can be found at Annex – II.

42. Performance Security	42.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS, well prior to the Contract signing by both parties. Where a performance security is required, the receipt of the performance security by PAF-IAST shall be a condition for rendering the contract effective.
43. Bank Guarantee for Advanced Payment	43.1 No Payment will be released in advance.
44. Liquidated Damages	<p>44.1 PAF-IAST shall apply Liquidated Damages for the damages and/ or risks caused to PAF-IAST resulting from the Contractor's delays or breach of its obligations as per Contract.</p> <p>a) In case of delay, the Procurement Committee, PAF-IAST reserves the right to impose a penalty not exceeding 10% of the total amount of the Contract Value at the rate as referred in the Sample Contract at Annexure – II.</p> <p>b) If the Contractor fails to complete work as per PAF-IAST requirement, the Rector, PAF-IAST reserves the right to reject it altogether or impose a penalty not exceeding 50% of the total amount of the Contract.</p> <p>c) If the Contractor fails to provide supplies/ services as per PAF-IAST requirements, PAF-IAST may forfeit his earnest money as well as Performance Security, and the work will be done at the risk and cost of Contractor.</p> <p>d) In case of any dispute, matter will be referred to Rector, PAF-IAST whose decision will be binding on both the parties.</p>
45. Force Majeure	45.1 "Force Majeure" means an event which is beyond the reasonable control of a party and which makes a party's performance of its obligations under the Purchase Order/ Work Order/ Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, War, Riots, Storm, Flood or other industrial actions (except where such strikes, lockouts or other industrial issues are within the power of the party invoking Force Majeure), confiscation or any other action by Government agencies. In all disputes between the parties as to matters arising pursuant to this Purchase Order/ Work Order/ Contract, the dispute will be referred to Project Director, PAF-IAST whose decision will be final.
46. Delivery of Goods	46.1 Contractor will be required to deliver the goods as per the Delivery Schedule referred in BDS without claiming any additional cost to the PAF-IAST at the designated site(s) and in quantities as referred in the Contract.
47. Payment Provisions	<p>47.1 Payment(s) will be made through LC (Letter of Credit) which will be Opened by PAF-IAST within 30 days after signing the Contract. However, Payment will be made only upon PAF-IAST's acceptance of the goods and/ or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice, and certification of acceptance of goods and/ or services issued by the PAF-IAST. Payment will be affected by bank transfer in the currency of the contract.</p> <p>47.2 The Contractor shall provide all necessary supporting documents along with GST invoice, delivery challan and any other relevant documents as required by the PAF- IAST.</p>

## Section 3. Bid Data Sheet

The following data for the goods and/ or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid. In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1.		Background	<p>Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF-IAST) is novel in its content and holistic in approach. The project concept is based on the slogan of “Skilling Pakistan” to create a high-quality technical education infrastructure. This unique educational institution in Pakistan closely collaborates with several institutions in Austria and China and award multiple foreign degrees. This is a historic and visionary initiative as it is probably the first time that an institution is established in Pakistan with many foreign universities giving degrees to students who study in it.</p> <p>Sino-Pak Center for Artificial Intelligence (SPCAI) is one of the four centers, which has been established at Pak-Austria Fachhochschule: Institute of Applied Sciences &amp; Technology (PAF-IAST) with the aim to build national capacity to carry out R&amp;D in the emerging field of artificial intelligence.</p>
2.		Objective	<p>The main objective of this Tender is to equip PAF-IAST with network/ internet services, meeting the computational needs, and have a safe and secure environment within the SPCAI Building, in order to provide enabling environment to the students, faculty, staff, and administrators to perform their work in a conducive and productive environment and deliver beyond the expectations.</p>
3.		Scope of Work	<p><b>“Supply, Installation/ Deployment &amp; Commissioning of SPCAI Building Network (Wired and Wireless)/Data Center Expansion, IP Surveillance &amp; RFID Solution”</b></p> <p>The required items grouped in various lots as referred in Section – 5 have been sought on Lot-wise Basis by PAF-IAST from reputed Firms/ Companies. The supplier is expected to supply high quality products meeting the specification as stipulated in this ITB, which conforms to the international quality standards. The time specified for delivery, Installation and Commissioning in the tender form shall be deemed to be the essence of the contract and the Successful Bidder shall arrange within the specified period.</p> <p>The scope of work under this tender has been envisioned as follow;</p> <ul style="list-style-type: none"> <li>Furnish, install and configure network components as identified and per the design and requirements as agreed with PAF-IAST.</li> <li>Integrate all of network, IP Surveillance components and Data Center expansion with existing setup with full functionality.</li> </ul> <p><b>Post-Commissioning Warranty and Support Services</b></p> <p>It is required that Manufacturer’s Warranty and Post-commissioning Bidder’s Support Services for at least One (01) year from the date of commissioning to PAF-IAST be provided by the Supplier within the quoted cost of items.</p> <p>Moreover, additional Warranty and Support Services for next Four (04) years should be quoted separately by the Bidder as per the</p>

			format of Form-G, on annual payment basis. However, it will be at sole discretion of PAF-IASST to avail additional Warranty and Support Services in subsequent year(s), or otherwise.
4.		Procurement Method	<b>PPRA Rule 36(b)</b>
5.	7	Language of the Bid	English
6.	14	Joint Venture/ Consortium	<b>Not Allowed.</b>
7.	22, 23, 27	Submitting Bids for Parts or subparts of the Schedule of Requirements (partial bids)	The Procurement Committee shall consider the Bids on Turn-Key-Basis (i.e. all items required in each component and any other item(s) necessary to meet the scope of work) as referred in Section – 5. Any item not quoted shall have reasonable grounds to reject the Bid, until and unless justified.
8.	20	Alternative Bids	<b>Not Allowed.</b>
9.	21	Pre-Bid conference	N/A
10.	16	Bid Validity Period	<b>120 days</b>
11.	13	Bid Security/ Earnest Money (Refundable)	<p><u>Required in the amount of: 2% of the Total Bid Value amount (including Extended Warranty).</u> In case of options, earnest money shall be based on the maximum quoted price amongst the options.</p> <p><u>Acceptable Forms of Bid Security:</u> Denominated in Pak Rupees duly issued by a Pakistani Bank or branch of a Foreign Bank, in the form of <b>CDR</b> in favor of the <b>Project Director SPCAI, PAF-IASST</b></p>
12.	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p><b>Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.</b></p>
13.	40	Performance Security	Within one week of issuance of Lol/ Purchase Order and well prior to the signing of Contract, as <b>10% of the Contract value</b> in the shape of Insurance/ Bank Guarantee or Draft for the duration of Project implementation and issuance of Final Acceptance Certificate (FAC) by the PAF-IASST.
14.	12	Currency of Bid	Pakistani Rupees (PKR)
15.	31	Deadline for submitting requests for clarifications/ questions	<b>5 days</b> before the submission deadline
16.	31	Contact Details for submitting clarifications/ questions	Focal Person in SPCAI, PAF-IASST: <b>Mr. Adnan Ahmed Malik</b> <b>0995-931402</b>
17.	18, 19, and 21	Manner of Disseminating Supplemental Information to the	Direct communication to prospective Bidders by email and/ or Posting on the PAF-IASST website:

		ITB and responses/ clarifications to queries	<a href="mailto:adnan.malik@paf-iaast.edu.pk">adnan.malik@paf-iaast.edu.pk</a> <a href="mailto:info@spcai.paf-iaast.edu.pk">info@spcai.paf-iaast.edu.pk</a>												
18.	23	Deadline for Submission	<b>Friday the April 22 , 2022 on or before 11:00 am (PST)</b>												
19.	22	Number of Set(s) of Bid	<b>Technical Proposal(s)</b> <ul style="list-style-type: none"> <li>- One (01) Original</li> <li>- One (01) Copy</li> <li>- Soft copy of Technical Proposal in a USB Flash Drive</li> </ul> <b>Financial Proposal(s)</b> <ul style="list-style-type: none"> <li>- One (01) Original</li> </ul> <p><b><i>Note: Bidders are required to prepare and submit the Proposal(s) against the Lot(s) separately in separate envelopes, in which they intend to participate.</i></b></p>												
20.	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/ Hand Delivery only												
21.	22	Bid Submission Address	<input checked="" type="checkbox"/> <b><u>By Courier/ Hand Delivery</u></b> Convener Procurement Committee, PAF-IAST, Mang, Haripur												
22.	22	Electronic submission (email) requirements	Not Allowed												
23.	25	Date, time and venue for the opening of bid	Date and Time: <b>Friday the April 22, 2022 at 11:30 AM</b> Venue: <b>Conference Room, PAF-IAST, Mang, Haripur</b>												
24.	27, 36	Evaluation Method	Eligible and qualified bids meeting the PAF- IAST requirements and technically responsive as stipulated in this ITB												
25.		Evaluation Method for the Award of Contract	Lowest priced technically responsive.												
26.		Expected date for commencement of Contract	<b>May 2022</b>												
27.		Maximum expected duration of Contract	<b>60 months</b>												
28.	35	PAF: IAST will award the contract to:	<b>One Bidder Only against each Lot</b>												
29.	39	Type and Contract Terms and Conditions that will apply	PAF-IAST General Terms and Conditions for Contracts for Goods and/ or Services as per Sample at Annex – II.												
30.	46	Delivery, Installation and Testing/ Training	<table border="1"> <thead> <tr> <th></th><th>Delivery</th><th>Installation</th><th>Commissioning</th></tr> </thead> <tbody> <tr> <td>Passive Components</td><td>2 weeks</td><td>8 weeks</td><td>1 week</td></tr> <tr> <td>Active Components</td><td>12 weeks</td><td>1 week</td><td>1 week</td></tr> </tbody> </table>		Delivery	Installation	Commissioning	Passive Components	2 weeks	8 weeks	1 week	Active Components	12 weeks	1 week	1 week
	Delivery	Installation	Commissioning												
Passive Components	2 weeks	8 weeks	1 week												
Active Components	12 weeks	1 week	1 week												
31.	47	Payment Schedule	Payment on Delivery of Equipment: 70% Payment on Commissioning: 30% (subject to Retention money or Insurance/ Bank Guarantee against 1 <sup>st</sup> year Warranty & Support Services)												



## Section 4. Evaluation Criteria

### Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/ No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period

### Minimum Eligibility Criteria

Eligibility will be evaluated on a Pass/ Fail basis.

Technical qualification will be evaluated on Score basis. Bidder will require to secure at least **70 percent** to qualify. Scores against each of the parameters in Section I, II & III will be according to documents provided by the Bidder, whereas scores in Section IV will be awarded by Technical Committee in response to Bidder's presentation.

ELIGIBILITY			
S. #	Subject	Criteria	Reference Returnable Form(s)
1.	<b>Bidder's Status</b>	Participating as <input type="checkbox"/> Individual Company	Form B: Joint Venture/ Consortium/ Association Information Form
2.	<b>Legal Status</b>	Bidder is a legally registered entity in Pakistan. Bidder is also registered with FBR for Income Tax and Sales Tax. Bidder must be Active Tax payers and Listed.	Form C: Bidder Information Form
3.	<b>Location of Offices</b>	Bidder has declared office(s) in Islamabad/ Rawalpindi/ Peshawar/ Lahore or in Haripur.	Form C: Bidder Information Form
4.	<b>Principal(s)' Authorization</b>	Bidder must be Authorized Partner/ Reseller/ Dealer for the supply and services of the quoted goods/ services	Form C: Bidder Information Form
5.	<b>Principal's Local Presence &amp; Parts' Availability</b>	Principal should have local presence and registered office in Pakistan with the relevant sales, pre-sales and engineering staff and at least One warehouse by Principal/ Bidder in one of each major city and possesses parts availability within the country (For Lot 1, 2 & 3)	Form C: Bidder Information Form
6.	<b>Company in Operation</b>	Bidder (Lead Bidder) is in operation for at least Ten (10) years.	Form C: Bidder Information Form
7.	<b>ISO Certification</b>	Bidder must have valid Certifications of 9001: 2015 and 27001:2013 only for Lot 1-3, and 9001:2008 and 27001:2005 for Lot 4.	Form C: Bidder Information Form
8.	<b>Competency Certification</b>	Bidder must have Huawei CSP Level 3, DCF, Data Communication, and Security Certification(s) or equivalent only for Lot 1-3.	Form C: Bidder Information Form
9.	<b>Financial Strength</b>	Average annual turnover over last 3 years no less than Rs. 300 million only for Lot 1-3.  Average annual turnover over last 3 years no less than Rs. 50 million only for Lot 4.	Form D: Qualification Form

10.	<b>Relevant Experience</b>	Min. No. of Projects of similar nature/ value/ complexity in last 3 years (Completed or On-going) At least Ten (10) projects of Networking Infrastructure, with a minimum of Three (03) projects in at least two of the identified Components (separately or combined), and at least three (03) projects of any of these Components in Education sector, with a large-scale implementation similar to the scope defined in this document.	Form D: Qualification Form Form E: Technical Proposal Form
11.	<b>Eligibility</b>	Bidder(s) is not suspended, nor debarred, nor otherwise identified as ineligible by any Government/ Semi-government/ Autonomous organization in Pakistan, in accordance with ITB clause 3. Non-Blacklisting certificate must be provided.	Form A: Bid Submission Form
12.	<b>Bankruptcy</b>	Bidder(s) has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
13.	<b>Certificates and Licenses</b>	<b>Bidder(s) related:</b> i Certificate of Registration of the business ii Certificate of Registration with FBR for both Income and Sales Tax iii Certified Partner Status issued by Principal iv A proofing document confirms the offered Warranty & Post-commissioning Support and Services for at least One (01) year. v Supporting photos, data sheets, documents depicting usage scenarios of the proposed items.	Form C: Bidder Information Form

QUALIFICATION					
S. #	Attribute	Description	Max. Score	Criteria	Returnable Form(s)
	<b>Section – I: General Corporate Profile</b>		<b>25</b>		
14.	<b>Bidder's Footprints</b>	Number of offices/ services centers across the country	5	3+ offices fully operational for last five (05) year	Form C: Bidder Information Form
			3	2 – 3 offices fully operational for last five (05) year	
			1	< 2 offices fully operational for last five (05) year	
15.	<b>Bidder's Human Resource Strength</b>	Number of full-time employees (documentary proof required)	8	150+ employees with at least 20% Technical staff (Lot 1-3) 30+ employees with at least 20% Technical staff (Lot 4)	Form C: Bidder Information Form
			6	100 – 150 employees with at least 20% Technical staff (Lot 1-3) 20 - 30 employees with at least 20% Technical staff (Lot 4)	
			3	50 – 99 employees with at least 20% Technical staff (Lot 1-3) 10 - 19 employees with at least 20% Technical staff (Lot 4)	
16.	<b>Financial Standing</b>	Annual Turnover averaged	7	2+ x Financial Strength	Form D:

over last 3 years			4	2 x Financial Strength	Qualification Form
			2	1.5 x Financial Strength	
17.	Annual Tax Paid (Principal & Bidder Individually) in Pakistan	Annual Tax Paid averaged over last 3 years	5	Rs. 100+ million or more (Lot 1-3) Rs. 10+ million or more (Lot 4)	Form D: Qualification Form
			3	Rs. 51 – 100 million (Lot 1-3) Rs. 5 - 10 million (Lot 4)	
			2	Rs. 25 - 50 million (Lot 1-3) Rs 2.5 – 5 million (Lot 4)	
Section – II: Business Profile			35		
18.	Relevant Experience	Project(s) of similar nature, value and/ or complexity completed/ on-going in last three (03) years	9	Min. No. of Projects + 5	Form D: Qualification Form
			7	Min. No. of Projects + 3	
			4	Min. No. of Projects + 2	
19.	Public Sector Experience	Project(s) delivered to/ on-going with government organizations during last three (03) years	9	5 Projects (each worth Rs. 25 million or more for Lot 1-3 only)	Form D: Qualification Form
			6	3 Projects (each worth Rs. 25 million or more for Lot 1-3 only)	
			4	2 Projects (each worth Rs. 25 million or more for Lot 1-3 only)	
20.	Education Sector Experience	Project(s) completed/ on-going at education institutions during last three (03) years	9	10+ Projects (For Lot 1-3) 5+ Projects (For Lot 4)	Form D: Qualification Form
			6	7 - 10 Projects (For Lot 1-3) 3 – 5 Projects (For Lot 4)	
			4	3 - 6 Projects (For Lot 1-3) 1 – 2 Projects (For Lot 4)	
21.	Experience in Haripur	Project(s) completed in Haripur	8	2+ Project completed in Haripur/ Abbottabad	Form D: Qualification Form
			4	= <2 Project completed in Haripur/ Abbottabad	
Section – III: Manufacturer’s/ Product’s Strengths			20		
22.	Manufacturer’s Global Presence	Countries having presence of the Manufacturer, Or have supplied the same Quoted items corresponding to each component(s)	10	No. of countries identified by Bid in consideration/ Max. No. of countries identified in all Bids * 10	Form E: Project Proposal Form
23.	Manufacturer’s Products Portfolio	Various Products produced by the manufacturer beyond quoted items	10	No. of relevant Products mentioned by Bid in consideration/ Max. No. of Products referred in all Bids * 10	Form E: Project Proposal Form
Section – IV: Presentation on Project Proposal			20		
24.	Project Management Approach	Overall approach towards planning and implementing the project.	10	To be assigned by the Technical Committee	Form E: Project Proposal Form

25.	Post-Commissioning Services	Overall approach towards after-sale support and services.	10	To be assigned by the Technical Committee	Form E: Project Proposal Form
Grand Total			100		
	Technical Evaluation	Bids shall be evaluated on both Eligibility and Technical Qualification Criteria. Bidders meeting the Eligibility Criteria and able to secure <b>70 percent</b> in Technical qualification shall be declared as Technically Qualified Bidders for the next step, i.e. Opening of Financial Bid.			
	Financial Evaluation	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form G. Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable) Comparison with budget/ internal estimates. Tender will be awarded on <b>least-cost basis</b> .			

## Section 5a: Technical Specifications of the Required Goods

Lot #01: Building Network (Wired & Wireless)		
<b>Aggregation Switch</b> <b>Huawei S6730 -S24X6Q</b> <b>or Better, Or</b> <b>Equivalent</b>	<b>System Parameters</b>	
	Forwarding Performance	400 Mpps or more
	Switching Capacity	900 Gbps or more
	CPU	4 Cores
	<b>Interfaces</b>	
	No. & Capacity of SFPs	24 10G SFP+ and 2 x 40G SFP+ ports along with 10KM SM SFPs
	<b>Basic Features</b>	
	MAC Address Table	Should support 32K MAC address entries (static & dynamic) Automatic learning & Aging of MAC address
	VLANs	4K VLANs, Default VLAN and voice VLAN, MUX VLAN or equivalent, VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	<b>Protocols Support</b>	
	Routing	Static routes, RIPv1/ v2, OSPF, IS-IS, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP4, BGP4+, VRRP, and VRRP6
	<b>Reliability</b>	
	Protection	BFD & VRRP, RRPP, Single RRPP ring, Smart Link and Smart Link multi-instance, providing millisecond-level protection switchover
	Standards	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	Types	BPDU protection, root protection, and loop protection
	<b>Security Features</b>	
	Authentication	802.1x, MAC address and Portal authentication
	Protocols	SSH v2.0, HTTPS
	<b>Quality of Service (QoS)/ Access Control List</b>	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED/ PQ, WDRR, WRR
<b>Access Switch</b> <b>Huawei S5735 –S24P4X</b> <b>or Better, Or</b> <b>Equivalent</b>	<b>System Parameters</b>	
	Forwarding Performance	90 Mpps or more
	Switching Capacity	120 Gbps or more
	CPU	4 Cores
	<b>Interfaces</b>	
	No. & Capacity of SFPs	24 Ethernet 10/100/1000 ports (PoE+), 4 x 10GE SFP+ Ports installed with 4 x 10GE SM 10KM SFP+ module
	<b>Basic Features</b>	
	MAC Address Table	Should support 16K MAC address entries (static & dynamic) Automatic learning & Aging of MAC address
	VLANs	4K VLANs, Default VLAN and voice VLAN, MUX VLAN or equivalent, VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	<b>Protocols Support</b>	
	©Routing	Static routes, RIPv1/ v2, OSPF, RIPng, OSPF, OSPFv3
	<b>Reliability</b>	
	Protection	Smart Link and Smart Link multi-instance or equivalent,

		providing millisecond-level protection switchover
	Standards	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	Types	BPDU protection, root protection, and loop protection
	<b>Security Features</b>	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	<b>Quality of Service (QoS)/ Access Control List</b>	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED/ PQ, WDRR, WRR
<b>Access Switch Huawei S5735-S48P4X or Better, Or Equivalent</b>	<b>System Parameters</b>	
	Forwarding Performance	130 Mpps or more
	Switching Capacity	160 Gbps or more
	CPU	4 Cores
	<b>Interfaces</b>	
	No. & Capacity of SFPs	48 Ethernet 10/100/1000 ports (PoE+), 4 x 10GE SFP+ Ports installed with 4 x 10GE SM 10KM SFP+ module
	<b>Basic Features</b>	
	MAC Address Table	Should support 16K MAC address entries (static & dynamic) Automatic learning & Aging of MAC address
	VLANs	4K VLANs, Default VLAN and voice VLAN, MUX VLAN or equivalent, VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	<b>Protocols Support</b>	
	Routing	Static routes, RIPv1/ v2, OSPF, RIPng, OSPF, OSPFv3
	<b>Reliability</b>	
	Protection	Smart Link and Smart Link multi-instance or equivalent, providing millisecond-level protection switchover
	Standards	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	Types	BPDU protection, root protection, and loop protection
	<b>Security Features</b>	
	Authentication	802.1x, MAC address and Portal authentication
	Protocols	SSH v2.0, HTTPS
	<b>Quality of Service (QoS)/ Access Control List</b>	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED/ PQ, WDRR, WRR
<b>Huawei Indoor AP AirEngine5760-51 or Better, Or Equivalent</b>	<b>WLAN Features</b>	
	Standard Compliance	IEEE 802.11ac, 802.11n, 802.11ax
	System data rate	5 Gbps or more
	MIMO	4x4 MU-MIMO @ 5 GHz for 802.11ax 2x2 MU-MIMO @ 2.4 GHz for 802.11ax
	Access Controller Registration	Automatically through DHCP or DNS
	Interference Identification	Smart Spectrum Analysis to identify interference from BT devices, digital cordless phones, wireless audio transmitters, game controllers, and microwave ovens.
	<b>Interfaces</b>	
	Uplink	1 x 1GE or more RJ45 port(s)
	Antenna	Built-in

	<b>Basic Features</b>	
	No. of SSIDs	15 or more per radio
	Radios	2.4 GHz and 5 GHz frequency bands
	No. of Concurrent Users	500 or more
	Power Supply	IEEE 802.3at/bt
	<b>Security Features</b>	
	Encryption	Both Hardware and IPSec
	Supported Authentication	802.1x/ AAA/ RADIUS/ HWTACACS, Portal Authentication
	Protections	ARP Security, DHCP Snooping, Wireless intrusion detection system and wireless intrusion prevention including rogue device detection and countermeasure, attack detection and dynamic blacklist, AP blacklist and whitelist
<b>Huawei Outdoor AP AirEngine8760R-X1 or Better, Or Equivalent</b>	<b>WLAN Features</b>	
	Standard Compliance	IEEE 802.11ac, 802.11n, 802.11ax Industrial grade IP68
	System data rate	10 Gbps or more
	MIMO	8x8 or Two 4x4 MU-MIMO @ 5 GHz for 802.11ax 4x4 MU-MIMO @ 2.4 GHz for 802.11ax
	Access Controller Registration	Automatically through DHCP or DNS
	Interference Identification	Smart Spectrum Analysis to identify interference from BT devices, digital cordless phones, wireless audio transmitters, game controllers, and microwave ovens.
	<b>Interfaces</b>	
	Uplink	1 x 10GE or more RJ45 port(s) (backward compatible with 1GE) 1 x SFP+ Optical port
	Antenna	Built-in
	<b>Basic Features</b>	
	No. of SSIDs	15 or more per radio
	Radios	2.4 GHz and 5 GHz frequency bands
	No. of Simultaneous Users	500 or more
	Power Supply	IEEE 802.3at/ bt
	<b>Security Features</b>	
	Encryption	Both Hardware and IPSec
	Supported Authentication	802.1x/ AAA/ RADIUS/ HWTACACS
	Protections	ARP Security, DHCP Snooping, Wireless intrusion detection system and wireless intrusion prevention including rogue device detection and countermeasure, attack detection and dynamic blacklist, AP blacklist and whitelist
<b>Wireless Access Controller (WAC)</b>	<b>System Parameters</b>	
	Forwarding Performance	Should support Direct forwarding: 120Gbps Tunnel forwarding: 120Gbps
	AP Capacity	Should support ≥ 3K APs managed by a single WAC with 500 AP licences
	<b>Interfaces</b>	
	No. & Capacity of SFPs	Should have 2 x 40G (QSFP+) + 12 x 10GE (SFP+) + 12 x GE on a single WAC with 4x10G SFP+ installed 1 x ETH Management port

	1 x Management console port (RJ45) 1 x USB interface
<b>Basic Features</b>	
Features	<p>Support Smart roaming based on 802.11k and 802.11v</p> <p>Support URL filtering is supported to permit or deny users' access to web page resources</p> <p>Support antivirus function</p> <p>Support Intrusion prevention to detect and terminate intrusion behaviors, including buffer overflow attacks, Trojan horses, and worms</p> <p>Should support band steering function</p> <p>APs supporting dual 5G radios automatically negotiate with each other to switch 2.4 GHz radios to the 5 GHz radios, reducing 2.4 GHz co-channel interference and increasing system capacity.</p> <p>The WAC supports spectrum analysis, so that you can view the real-time FFT chart, channel metrics, FFT duty cycle, interference strength, and channel quality.</p> <p>The SSID can be enabled or disabled periodically. That is, the specified SSID can be disabled from transmitting signals within a specified period of time, facilitating network control</p>
IPv6	<p>An AP can establish CAPWAP tunnels with a WAC through the IPv4/IPv6 dual-stack and can be managed by the WAC</p> <p>Support IPv6 dynamic routing protocols, such as OSPFv3 and BGP4+</p>
Power Supply	Must have redundant power supplies
<b>Authentication Services</b>	
Systems Capacity	At least 30,000 concurrent online users or more on a single node
Users Authentication	<p>AD, LDAP &amp; RADIUS based username and password authentication and association for identity authentication.</p> <p>Dynamic role matching to map attributes to roles and authorize users by role.</p>
Systems Authentication	802.1x authentication, MAC address authentication, Portal authentication, security gateway authentication, and VPN authentication to implement integrated wired and wireless authentication on internal and external networks
Protocols Authentication	PAP, CHAP, EAP-MD5, EAP-PEAP-MSCHAPv2, EAP-TLS, EAP-TTLS-PAP, and EAP-PEAP-GTC.
Domain Integration	<p>Integrate and associate with multiple AD domains and with multiple AD/LDAP servers.</p> <p>User account and user group synchronization based on the OU or Group in the AD/ LDAP domains</p> <p>Multiple synchronization choice on whether synchronize the user or user group information into the Access Controller.</p>
<b>Protocols Support</b>	
Routing	Support Static routing, RIP-1/RIP-2, OSPF, BGP, IS-IS, routing policy, and policy-based routing (PBR)
<b>Reliability</b>	
Protection	1+1 or N+1 backup of ACs, and configuration synchronization between active and standby WACs are supported.
	Supports port backup based on the Link Aggregation Control Protocol (LACP)
	The WAC and APs are upgraded separately. In addition, services are not interrupted during the upgrade in dual-WAC redundancy mode.
<b>Management</b>	
Protocol	<p>Support configuration management through the CLI, web system, and SSH is supported, and SNMPv1/v2/v3</p> <p>Should support network-wide wireless performance monitoring for WACs, APs, radios, and STAs</p>



		WAC should support visualized E2E fault diagnosis, display of user, AP, and WAC connectivity diagrams, and display of root causes and handling suggestions Should support intelligent upgrade. The latest software is automatically downloaded from the cloud and upgrade is performed as planned Support Automation with SDN Controller
	Brand/OEM Presence	Brand should be minimum in Visionaries position in Wired and Wireless LAN Infrastructure at least once in last 3 years in Gartner report
<b>Unified Network Management Solution</b>	<b>Licenses for existing Huawei NMS</b>	
	Software	Add licenses on existing Huawei to add new network devices.
	<b>Required No. of Licenses</b>	
	Network Nodes	At least 30
	WLAN Nodes	At least 65
	Surveillance Nodes	At least 60
<b>Installation, Configuration &amp; Commissioning</b>	<ol style="list-style-type: none"> <li>1. Complete installation of all equipment/ components as per manufacturer's guidelines, and reinstate the site in all civil aspects.</li> <li>2. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements.</li> <li>3. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IASST.</li> <li>4. Must support layer 3 roaming around the campus</li> <li>5. Integration with existing Huawei Core Switch S7706, Huawei Agile Controller Campus VR100R00 &amp; eSight V300R010 with full functionality</li> </ol>	

**Note: Bidders are required to provide/ supplement their claim of “equivalent” product or model with Third Party Report, OR Demonstrate the complete interoperability of the proposed equipment, without which, claim will not be accepted, and Bid is likely to be rejected.**

<b>SUB-COMPONENT (LOT#1): PASSIVE WORK FOR 700 NODES</b>		
<b>Optical Fiber</b>	<b>Fiber Cable</b>	
	24 Core	3M/ Schneider/ iconnect/ Molex or equivalent
	12 Core	3M/ Schneider/ iconnect/ Molex or equivalent
	Fiber Patch Cord (3 m)	Platinum
	<b>ODF</b>	
	12/24 Port (Rack Mount)	Platinum with coupler
<b>LAN Networking (Wired, Wireless &amp; IP Surveillance)</b>	<b>UTP Cable</b>	
	CAT 6A (500 m)	3M/Schneider iconnect/ or equivalent F/UTP
	<b>Patch Cord</b>	
	Patch Cord (1 m) Cat 6A	3M/Schneider iconnect/ or equivalent
	Patch Cord (3 m) Cat 6A	3M/Schneider iconnect/ or equivalent
	Patch Cord (5 m) Cat 6A	3M/Schneider iconnect/ or equivalent
	<b>Miscellaneous</b>	
	42U Network Rack	Double Section with Lock, Fan and PDU
	19U Network Rack	Double Section with Lock, Fan and PDU
	Patch Panel 24 Port (3M) Cat 6A	3M/Schneider/ iconnect/ or equivalent, Loaded
	Cable Manager Cat 6A	3M/Schneider/ iconnect/ or equivalent, Metal made

	RJ-45 Connector Cat 6A	3M/Schneider/ iconnect/ or equivalent
	Face Plate with Box Cat 6A	3M/Schneider/ iconnect/ or equivalent single shutter with back box
	I/O Cat 6A	3M/Schneider/ iconnect/ or equivalent
	PVC Duct 16x25/16x38/40x40	Adamjee or equivalent
	Electrical cable 10mmx3c Armored	Fast cable or equivalent
	Electrical Point for Network rack	Fast cable with Clipsal Socket
<b>Installation, Configuration &amp; Commissioning</b>	<ol style="list-style-type: none"> <li>1. Complete installation of all equipment/ components pertaining to Passive Work for the Building Network facilities as per manufacturer's guidelines, and reinstate the site in all civil aspects.</li> <li>2. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements.</li> <li>3. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.</li> <li>4. Integration with existing Network with full functionality.</li> </ol>	

**Note: Bidders are required to provide/ supplement their claim of “equivalent” product or material under passive work with Third Party Report, without which, claim will not be accepted, and Bid is likely to be rejected.**

<b>Lot #02: Building Security (IP Surveillance)</b>		
<b>Huawei C2141-I Bullet Cameras or Better, Or Equivalent</b>	<b>System Parameters</b>	
	Lens	1/1.8" 4.0 MP
	Frame Rate	30FPS
	Resolution	4MP (2560(H) * 1440(V))
	WDR	120 dB
	IR range	40 m
	Focal Length	2.8 – 12 mm
	<b>Protocols</b>	
	Video	MJPEG/H.264/H.265
	Network	TCP, UDP, IPv4, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1X, QoS, SMTP, and PPPoE. Note: The northbound protocol needs to adapt to the PPPoE dialup scenario
	<b>Interfaces</b>	
	Network	RJ45 FE 10/100Mbps
	Power	PoE (IEEE 802.3af)
	<b>Basic Features</b>	
	Image Quality	Defog, 2D/3D noise reduction, Highlight Compensation
	Identification	Face detection, Abandoned Object, Object Removal, Intrusion detection, Trip Wire, and Loitering detection
	Power Supply	DC12V±25% or more
	<b>Security Features</b>	
	Encryption	Supports web- or SDK-based media stream encryption; supports a maximum of two channels of encrypted media streams; media stream encryption and full intelligence, target recognition, or image upload through SFTP/FTP cannot be enabled at the same time; after the intelligent analysis function is enabled, only one-channel stream encryption is supported; supports encrypted data storage on SD cards.

	Authentication	Username and password authentication, 802.1X authentication, and HTTPS digital certificate
<b>Huawei C3050-I-P(6mm) Indoor Dome Cameras or Better, Or Equivalent</b>	<b>System Parameters</b>	
	Lens	1/2.7" 5.0 MP
	Frame Rate	30FPS
	Resolution	5MP (2560(H) * 1920(V))
	WDR	120 dB
	IR range	30 m
	Focal Length	6 mm
	Aperture	F1.6 and IRIS
	<b>Protocols</b>	
	Video	MJPEG/H.264/H.265
	Network	TCP, IPv4, UDP, DHCP, DNS, ICMP, IGMP, HTTPS, FTP, SFTP, RTP, RTSP, RTCP, SIP, ARP, SSL, NTP, SNMP (V1/V2/V3), 802.1X, QoS, SMTP, and PPPOE; Note: The northbound protocol needs to adapt to the PPPoE dialup scenario.
	<b>Interfaces</b>	
	Network	RJ45 FE 10/100Mbps
	Power	12 V DC and PoE (IEEE 802.3af)
	<b>Basic Features</b>	
	Image Quality	Defog, 2D/3D noise reduction, Highlight Compensation
	Watermarking	Digital
	Identification	Face detection, Abandoned Object, Object Removal, Intrusion detection, Trip Wire, and Loitering detection
	Power Supply	DC12V±25% or more
	<b>Security Features</b>	
	Encryption	Supports web- or SDK-based media stream encryption; supports a maximum of two channels of encrypted media streams; media stream encryption and full intelligence, target recognition, or image upload through SFTP/FTP cannot be enabled at the same time; after the intelligent analysis function is enabled, only one-channel stream encryption is supported; supports encrypted data storage on SD cards.
	Authentication	Username and password authentication, 802.1X authentication, and HTTPS digital certificate
<b>Installation, Configuration &amp; Commissioning</b>	<ol style="list-style-type: none"> <li>1. Complete installation of all equipment/ components as per manufacturer's guidelines, and reinstate the site in all civil aspects.</li> <li>2. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements.</li> <li>3. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.</li> <li>4. Integration with existing Huawei Core Switch S7706, Huawei IVS3800 &amp; eSight V300R010 with full functionality.</li> </ol>	

**Note: Bidders are required to provide/ supplement their claim of "equivalent" product or material under passive work with Third Party Report, without which, claim will not be accepted, and Bid is likely to be rejected.**

Design Requirements	Data Center Requirements										
	No. of IT Racks	Two (02) initially expandable up to another Four (03) in future									
	IT Power Density	8kW per Rack minimum									
	Total IT Power Load	20kVA									
	Power Redundancy	N+1									
	Cooling Type	Precision In-rack cooling									
	Cooling Redundancy	2N+1									
	DCIM	All critical Power and Cooling components									
	Surge Protection Level	Class II/C, In 20kA, I <sub>max</sub> 40kA, 8/20 μs									
	Waterproof & Dustproof level	IP20									
	Cabinet Systems										
	Architecture Design	Modular with Cold Aisle Containment									
	Module Components	Integrated Cabinet System Power Supply and Distribution System Precision Cooling System Management System Cabling System									
	Aisle Containment Type	Cold Aisle Containment Depth: ~250 mm. Dual-layer sealed glass Front door.									
	Cabinet Systems Features	Ventilation Rate of the perforated door: 70% or more Doors Locking: Both front and rear doors with mechanical locks. Cabinet Depth: ~1100 mm									
	Technical Specifications	<table><tr><td>Type</td><td>Modular &amp; Containment/ Pod</td></tr><tr><td>Color</td><td>Black</td></tr><tr><td>Material</td><td>High-intensity class A carbon cold rolled steel sheet and zinc-coated steel sheet</td></tr><tr><td>Protection level</td><td>IP20</td></tr></table>		Type	Modular & Containment/ Pod	Color	Black	Material	High-intensity class A carbon cold rolled steel sheet and zinc-coated steel sheet	Protection level	IP20
	Type	Modular & Containment/ Pod									
	Color	Black									
	Material	High-intensity class A carbon cold rolled steel sheet and zinc-coated steel sheet									
	Protection level	IP20									
	Deployment	Single or Dual-row with minimum occupancy of equipment room space									
	Environmental Adaptability										
	Temperature Range	-10°C to +55°C									
Humidity Range	5% to 95%										
Altitude Range	4,000 ft or more										
Certifications											
Supplier's Related	Computer Information System Integration Qualification Certificate (Class 1) ISO 9001/TL9000 ISO 14001 ISO IEC_27001 OHSAS 18001										
Product(s) Related	Air conditioner: CE certificates obtained; REACH, RoHS report obtained Battery cabinet: CE, RoHS, REACH, certificates obtained Integrated power distribution cabinet: CE, RoHS, REACH, certificates obtained										

<b>Uninterrupted Power Backup System</b>	<b>System Parameters</b>	
	Rate Capacity	20KVA initially, upgradable up to 40KVA or more
	Configuration	N+1
	Backup Time	15 min or more
	Installation Mode	Modular or Rack-mountable
	Rack Space Occupancy	3U or less
	Input Voltage	150–485 V AC,40-70Hz
	Communication Port	RS485
	<b>Efficiency</b>	
	In Online Mode	95% or more
	Overload Capacity	At least 125%
	<b>Power Distribution Box Specifications</b>	
	Installation Mode	Rack-mountable
	Rack Space Occupancy	3U or less
	Indicator Module Height	1U
	UPS Switches	Maintenance Bypass Switch and Surge Protection Switch
	Battery Cabinet Type	Deployable Inside
	<b>Electrical Performance</b>	
	No. of Outputs	Four (04) IT Outputs or more
	Output Type	C13/ C19 Standard Sockets
	SPD Type	Class C SPD in Standard Configuration
	Circuit Breaker Protection Support Type	rPDU of 32A or higher current
<b>In-row Precision Air Cooling</b>	<b>Technical Specifications</b>	
	Indoor Fan Type	EC Fan
	Total cooling capacity	12.5 kW or more
	Air volume	2500 m3/h or more
	Indoor unit installation mode	Rack-mounted
	Outdoor unit installation mode	Wall/ floor-mounted
	Heating capacity	3kW or more
	<b>Installation Mode</b>	
	Height between indoor and outdoor units	5 - 20 m
	length of the one-way pipe	60 m or more
	Water drainage distance	4 m or more
	<b>Energy Efficiency</b>	
	Compressor Type	DC Invertor
	Cooling Capacity on demand	30%–100% stepless speed adjustment
	No. of DC Fans in Indoor Unit	Four (04) or more
	Air Supply Mode	Horizontal
	Load Management	Variable-frequency temperature controller
	Humidifier Type	Wet film

	<b>Reliability</b>	
	Air Conditioner Type	DC variable-frequency
	Humidity Control	Below 80% with non-condensation at low loads
	<b>Compatibility</b>	
	Rack-mounting size	11U or less
	Refrigerants Pipes Route	From Top or Bottom
	Additional Functions	Both heating and humidifying
<b>Monitoring &amp; Management Solution</b>	<b>System Parameters</b>	
	Monitoring Function	Remotely monitorable over the web user interface (WebUI).
	Alarms Alerting System	Short Message Service (SMS) integration
	O&M on the move	Mobile APP
	Simulation Reports	Computation Fluid Dynamics (CFD) heat analysis and system optimization simulations
	<b>Monitoring Interfaces</b>	
	Environment & Power	Power supply and distribution devices UPS monitoring Precision Air conditioners monitoring Temperature and Humidity monitoring Water leakage monitoring Smoke detection monitoring Video surveillance devices (2MP HD Camera with SD Card) Access control devices inside the module.
	Alarms Indication Modes	Color Email SMS Audio
	<b>Management Features</b>	
	Events Recording	All historical data and alarm events are recorded
	Management Reporting	All monitoring information available on management platform
	Operations	Real-time information through pad or mobile APP
	Controller Pad	9 inches at least
<b>Installation, Configuration &amp; Commissioning</b>	6. Complete installation of all equipment/ components as per manufacturer's guidelines and reinstate the site in all civil aspects. 7. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements. 8. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST. 9. Integration with existing with existing DCIM NetEco with full functionality	

**Note: Bidders are required to provide/ supplement their claim of “equivalent” product or material under passive work with Third Party Report, without which, claim will not be accepted, and Bid is likely to be rejected.**

## Lot #04: RFID based Access Control Solution

### Visitor Management Information System

CNIC Reader	
Image Capturing	Full color image and also ultraviolet (UV) and infrared (IR) images of ID card or driver's license
Image Reading	Support of Optical Character Recognition (OCR) for machine-readable zone (MRZ)
Standards compliant	ICAO9303 and PDF417 bar code reading
Processing capability	~1 sec for color+uv+ir+ocr processing
OS Compatibility	Windows
Power	USB powered
RFID Card Collector/ Issuer	
Features	Compact size; Robust structure; Card Read/ Write; Error card capture function
Intelligent Card Dispenser	At least 500 Cards with 0.76mm thickness
High speed Card Issuance	3-4 sec. per Card
Standards compliant	ISO 7811 Magnetic (Track 1, 2, 3 and Lo-Co/Hi-Co); ISO 7816 Contact IC; ISO 14443 Contactless RF card
Interface	RS-232C
Card Thickness Range	0.22mm to 1.0mm
PC with webcam and accessories	
Processor	Core i7 10 <sup>th</sup> Gen
RAM	16GB DDR4 3200 Non ECC Memory
Storage	512GB SSD and 1TB HDD
Graphics Card	Nvidia Quadro P620, 2GB
Display Screen	LED 24" of same brand
Webcam and accessories	Logitech C270 HD camera, USB Keyboard and USB Mouse
Self-service Kiosk RFID Card Collector/ Issuer	
CNIC Reader	Color, UV, IR, OCR reading; ICAO9303 and PDF417 bar code reading
Card Issuer	ISO 7811 Magnetic (Track 1, 2, 3 and Lo-Co/Hi-Co); ISO 7816 Contact IC; ISO 14443A Contactless RF card
Card Collector	
Display Screen	10inch Touch LCD
PC Webcam	Logitech C270 HD camera or equivalent suitable for Kiosk
Casing	Plastic Thermoforming or manufacturer's recommended
Tripod Turnstile Gate	
Dimension	420*330*980 mm as per the space
Material	Stainless steel #304 or equivalent
Reset after power on	Minimum 3 Seconds
LED Light	Direction and Arrow
Pole Driving Force	Minimum 3kgs
Arm Length	550 mm as per the required dimensions
Rotating Direction:	Bi-directional
Power Supply	AC220V±10%, 50/60hZ
Motor	DC24V brush motor or equivalent
Transit Speed	30-35 persons per minute
Life Cycle	Minimum 3 million times
Communication Port	RS485 or equivalent
Compatibility	With overall solution

	<b>Barrier with Access Control Machine</b>	
	Functions	Automatic for Entry and Exit Gates;
	Response	Dual Speed for quick opening and closing with soft landing
	Safety	Inbuilt anti-crush safety device and Beam sensor
	Operating Power	DC 24V
	Features	Indication Lights, Loop Detector, Fully integrate-able with the overall system, and Accessories
	<b>Vehicle RFID Tags</b>	
	<b>Long-range RFID Reader with Poles</b>	
	<b>Management Software</b>	
	Application	Desktop or Server based Application with backend admin Panel and Web Reporting Tool. Application should be developed on standard and commonly used platforms, frameworks, and database.
<b>Building Access Control System</b>	<b>Access Control Device</b>	
	Card Support	1-4K Classic
	Operational Mode	Local and Network Mode
	Card Sensing Range	30mm or more
	Interface	Ethernet
	Battery	Lithium battery powered Real Time Clock
	Door Control	1 Door Strike, 1 Door Switch and 12VDC/1.5A
	Fingerprinting	Image resolution: 320x480 pixel,500DPI Scanning Window: 16mm x 24mm Recognition Accuracy: FAR-10-6, FRR-10-2 Capacity (Local): 2000 minimum
	Features	All Authentication must be performed at server side. Must have strong and well known and encryption algorithm for data Between server and machine.
	<b>Electromagnetic Door Lock</b>	
	Faceplate	Rectangular-shaped Aluminum Cover material, Stainless steel
	Swinging capabilities	Outswing door, Inswing door and Double swing door
	Control Mode	Power to Lock
	Power Input	12VDC
	Consumption Pull in	1A , Holding: 0.3A
	Relock Time Delay	0, 2.5, 5 seconds
	Dimensions	Lock: 200L x 34W x 43H mm; Armature plate: 210L x 42W x 0.8H mm (Apporx.)
	<b>No Touch Exit Switch</b>	
	Sensor	1 x Infrared Sensor
	Sensing Range	Adjustable; Short ~12cm/ Long ~30cm



Material	Tempered glass panel
Indicator	LED "Exit" Display standby mode; Blue:ON; Green (Touching):ON
Output Port	NC/NO/COM Port
Power Input	DC 12V
Power Consumption	150mA (max)
<b>Emergency Exit Switch</b>	
Rated Current	3A@36VDC Max
Applicability	Exit doors, emergency doors
<b>Long Backup UPS</b>	
Power Connector	AC input x 1, DC output x 2, Rechargeable battery x 1
Power Input	100-240V, 50 / 60Hz, Universal
Power Output	13.8V, 3.5A
<b>Enroller Reader/ Writer</b>	
Card Sensing Range	Min. 15mm
Interface	USB2.0 compatible plug and play with 2 meter cable
OS Support	Windows10
Standard Compliant	ISO14443A; Mifare key encryption; 1KB and 4KB Classic Mifare cards
Carrier Frequency	13.56MHz
Card Read/ Write Time	~0.5 sec
Fingerprinting	Scanning area: 16 x 24 mm or more; Image Resolution: 320x480, 500dpi
Power consumption	active <180mA
Supply Voltage	DC 4.5V – 5.5V via USB port
<b>Mifare Card</b>	
Type	MIFARE Classic EV1 1K
Operating Frequency	13.56MHz
Data Transfer	106 kbit/s
Data Integrity	16-bit CRC, parity, bit coding, bit counting
Data Size	1 – 4 Kbytes
<b>Client Machine (for RFID/Biometric card Enrollment)</b>	
Processor	Intel Ci7-1170 16M Cache, 8C 16T 2.5Ghz up to 4.90 GHz
Memory	16GB 2x8GB DDR4 2933MHz RDIMM ECC Memory
Storage	M.2 512GB PCIe NVMe Class 40 Solid State Drive HDD 1TB 2.5" 7200 RPM
Graphic Card	NVIDIA Quadro P620, 2GB
Display	LED 24' P2419H
Input devices	Keyboard USB & Mouse USB
Warranty	3Yrs
<b>Central Server</b>	
Processor	Intel Xeon W-2223 (4C 3.6GHz 3.9GHz Turbo HT 8.25MB 120W DDR4-2666)
Memory	16GB 2x8GB DDR4 2933MHz RDIMM ECC Memory
Storage	M.2 512GB PCIe NVMe Class 40 Solid State Drive HDD 1TB 2.5" 7200 RPM
Graphic Card	NVIDIA Quadro P620, 2GB
Display	LED 24' P2419H
Input devices	Keyboard USB & Mouse USB
Warranty	3Yrs
<b>Central Access Control Management Utility software</b>	

	Data synchronization	Import User information from AD server to ACM
	User Management	Admin Panel, Add/Remove/Edit User, User Login Role's definition
	Device Management	Add/Remove Device, User Info send/receive from Server to Device and Device to server, Add/Block users
	User Enrollment:	Mifare Card and Fingerprint (Optional) Registration and Deletion
	Log Reporting:	Access Log reports (Daily, Monthly and Between dates, User, department, Machine wise)
<b>Installation, Configuration &amp; Commissioning</b>	<ol style="list-style-type: none"> <li>1. Complete installation of all equipment/ components as per manufacturer's guidelines, and reinstate the site in all civil aspects.</li> <li>2. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements.</li> <li>3. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.</li> <li>4. Integration with existing technological infrastructure with full functionality.</li> </ol>	

**Note:**

1. PAF-IAST may re-adjust the quantities.
2. The Bidder shall indicate in their offer,
  - a. detailed specifications of their offered product(s)/ solution(s),
  - b. standard accessories,
  - c. make and origin, as part of confirming Compliance as per the format given in Form – D.
3. The Unit Price, Total Bid Price, and Additional Warranty Price of the quoted items shall be indicated as per the given format in Form – G.
4. Bidders are required to provide/attach third party report or assessment in case items are quoted as per the provision of "Equivalent" given in RFP

## Section 5b: Special Terms and Conditions

### Standard

- The goods supplied must be capable of functioning properly under the climatic conditions of Haripur.
- The goods supplied shall not be reaching to their “End of Sale/ Life” in next three (03) years and “End of Support” in next five (05) years from the date of delivery. To this effect, Bidder(s) shall supply a Certificate from the Principal(s) for all the equipment.
- There shall be no deviation from specification as provided with each item. In case of any ambiguity in specification/ accessories needed for the full functioning of the equipment, the firm must clear it with the Procurement Committee. However, the decision of the Procurement Committee will be final.
- The goods with standard accessories supplied under this tender shall confirm to the standard maintenance in the technical specification.

### Training

- The bidder supplying the item/ equipment(s) will demonstrate the operation/ working of the supplied goods as per manufacturer’s guidelines and provide training. Suppliers are advised to provide details on formal training for each of the Component(s) covering aspects as mentioned below, but not limited to, as required in Form – E (Section 3).

LOT(s)			
Level	1, 2 & 3	2 & 3	2 & 3
Basic	Demonstrate the working to end users; Identify the do’s and don’ts; and aspects deem necessary for long-life functioning of supplied goods.		
Hands-on		Demonstrate technical features; Elaborate technical configuration(s) performed for integration with the overall setup;	
Advanced			Provide trainings to Operators for troubleshooting and smooth operations using system manuals

- **Calibration of item/ equipment**
- The supplier will install the good(s) in the presence and satisfaction of the Procurement Committee, if need be. In case of any defect in the supplied good(s) or if it is not in accordance with the desired specification(s), the goods will be changed at the cost of the supplier.

### Warranty/ Guarantee

- The Supplier will give comprehensive onsite warranty/ guarantee that the goods/ stores/ articles would continue to conform to the description and quality as specified for a period of at least Five (05) years, if acquired by PAF-IAST, from the date of delivery, installation and commissioning of the said goods/ stores/ articles.
- The Supplier shall also replace equipment, in case it is found defective which cannot be put to operation due to manufacturing defect, etc. In case of equipment specified by the Procurement Committee, the supplier shall be responsible from carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The supplier shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of equipment whether under their annual maintenance and repairs contract or otherwise. In case of change of model, supplier will give sufficient notice to the Procurement Committee who may like to purchase spare parts from them to maintain the equipment in perfect condition.

**Support Service**

- The Supplier will also be responsible for post-commissioning Support Services as per the SLA during first year of Warranty within the cost of equipment and services.
- The Supplier shall continue to provide Support Services in subsequent years for additional Four (04) years, should PAF-IAST decides to avail the Warranty/ Support Services on annual basis.

## Section 6: Returnable Bidding Forms / Checklist

---

This section serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

### Bid Proposal:

<b>Have you duly completed all the Returnable Bidding Forms?</b>	
✦ Form A: Bid Submission Form	<input type="checkbox"/>
✦ Form B: Joint Venture/ Consortium/ Association Information Form	<input type="checkbox"/>
✦ Form C: Bidder Information Form	<input type="checkbox"/>
✦ Form D: Qualification Form	<input type="checkbox"/>
✦ Form E: Bid Proposal Form	<input type="checkbox"/>
✦ Form F: Specifications Compliance Form	<input type="checkbox"/>
✦ Form G: Price Schedule Form	<input type="checkbox"/>
<b>Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?</b>	<input type="checkbox"/>

## Form A: Bid Submission Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

We, the undersigned, submit our Bid for the award of contract to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number]. We hereby submit our Bid, which includes this Bid proposal.

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/ Consortium/ Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by any of the Government/ Semi-government/ Autonomous organization;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any Organization in Pakistan;
- c) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against us that could impair our operations in the foreseeable future;
- d) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the PAF: IAST, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the PAF: IAST.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/ or sanctioning by the PAF-IAST.

We offer to supply the goods and related services in conformity with the Bidding documents, including the PAF-IAST General Conditions of Contract and in accordance with the Schedule of Requirements and Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should PAF- IAST accept this Bid.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

Signature: \_\_\_\_\_

*[Stamp with official stamp of the Bidder]*

## Form B: Joint Venture/ Consortium/ Association Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal, if applicable and allowed)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/ Consortium/ Association.

No	Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i>	Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

<b>Name of leading partner</b> (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
--	------------

We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture      **OR**    ☐ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to PAF: IAST for the fulfillment of the provisions of the Contract.

Name of partner: _____	Name of partner: _____
Signature: _____	Signature: _____
Date: _____	Date: _____
Name of partner: _____	Name of partner: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

## Form C: Bidder Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

<b>Legal name of Bidder</b>	[Complete]
<b>Legal address &amp; Branch Offices</b>	[Complete]
<b>National Tax Number (NTN)</b>	[Complete]
<b>Sales Tax Number (STRN)</b>	[Complete]
<b>Year of registration</b>	[Complete]
<b>Location of Office(s)</b>	[Complete]
<b>Principal(s) Office Address in Pakistan</b>	
<b>Warehouse Address in Pakistan</b>	
<b>Bidder's Authorized Representative Information</b>	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
<b>Are you a PAF – IAST registered vendor?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No    If yes, [insert PAF- IAST vendor number]
<b>Countries of operation</b>	[Complete]
<b>No. of full-time employees</b>	[Complete]
<b>No. of Technical Staff</b>	[Complete]
<b>Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):</b>	[Complete]
<b>Competency Certifications (e.g. Huawei CSP Level-3 or equivalent) (If yes, provide a Copy of Certificate)</b>	[Complete]
<b>Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):</b>	[Complete]



<b>Does your Company have a written Statement of its Environmental Policy?</b> <i>(If yes, provide a Copy)</i>	[Complete]
<b>Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies, education, vocational trainings, social responsibility towards people with Special needs, or membership of trade institutions promoting such issues</b>	[Complete]
<b>Contact person that PAF: IAST may contact for requests for clarifications during Bid evaluation (Only Lead Bidder)</b>	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
<b>Please attach the following documents:</b>	<ol style="list-style-type: none"> <li>1. Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/ or services being procured.</li> <li>2. Proposed timetable for delivery, installation and commissioning plan for the required and quoted items to PAF – IAST after the award of Contract.</li> <li>3. Certificate of Registration of the business.</li> <li>4. Certificate of Registration with FBR</li> <li>5. Principals' Authorization Letter in favor of Bidder to participate in this Tender.</li> <li>6. Certified Partner Status evidence</li> <li>7. A proofing document confirming supply of same or similar items pertaining to each Components, of this magnitude to various clients/ customers in Pakistan.</li> <li>8. Proven records of no less than the required Projects of similar nature/ value/ complexity in which delivery and services were extended.</li> <li>9. Full detailed description of the specifications of the proposed items in addition to catalogues clearly showing the proposed specifications responding to the requirements.</li> <li>10. Supporting photos of the proposed items.</li> <li>11. Quality certifications: ISO 9001:2015</li> <li>12. Information Security Management certification: ISO 27001:2013</li> <li>13. Latest Audited Financial Statements (Income Statement and Balance Sheet) including Auditor's Report for the past (3 years).</li> </ol>

## Form D: Qualification Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

## Previous Relevant Experience

Please list all Projects successfully completed in the last 3 years, covering following aspects;

- Scope of the projects/ assignments.
- Activities performed for the successful completion (or on-going) of the project.
- Support Services Contracts in hand with SLA for the supplied goods.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/ JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by PAF- IAST.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

## History of Non-Performing Contracts

<input type="checkbox"/> Non-performing contracts did not occur during the last 3 years			
<input type="checkbox"/> Contract(s) not performed in the last 3 years			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Reason(s) for non-performance:	

## Financial Standing

<b>Annual Turnover for the last 3 years</b>	Year	PKR
	Year	PKR
	Year	PKR
<b>Latest Credit Rating (if any), indicate the source</b>		

<b>Financial information</b> (in PKR equivalent)	<b>Historic information for the last 3 years</b>		
	Year 1	Year 2	Year 3
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- Historic financial statements must be audited by a certified accountant;
- Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

## Tax Payment Standing

### Annual Tax Paid by the Bidder

<b>Annual Turnover for the last 3 years</b>	Year	PKR
	Year	PKR
	Year	PKR

## Form E: Technical Proposal Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

### SECTION 1: Qualification, capacity and expertise

- 1.1 Bidder's general organizational capability: management structure, financial stability and project financing capacity, project management controls, extent of work to be subcontracted (if so, provide details).
- 1.2 Bidder's relevance of specialized knowledge and experience on similar engagements done in the region/ country. Bidder should submit a detailed description of the projects executed (quantities, value, beneficiary)
- 1.3 Manufacturer's strengths covering the regional/ global market presence, hi-tech products portfolio, manufacturing capacity, R&D activities resulting in national and international patents, quality control and assurance practices, and international certifications in relevant areas.

### SECTION 2: Management Structure and Key Personnel

- 2.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of project describing relationship of key positions and designations.
- 2.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to scope of goods and/or services.

#### Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/ Qualifications	[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.] [Insert]
Professional certifications	[Provide details of professional certifications relevant to the scope of goods and/or services] ✦ Name of institution: [Insert] ✦ Date of certification: [Insert]
Employment Record/ Experience	[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position and location of employment. [Insert]

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

\_\_\_\_\_  
Signature of Personnel

\_\_\_\_\_  
Date (Day/Month/Year)

### **SECTION 3: Scope of Supply, Technical Specifications and Training(s)**

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed (if different from the mentioned products/ models), addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

### **SECTION 4: Registration & Certifications**

This section should demonstrate the Bidder's responsiveness towards its registration with the relevant national body and international organizations Certifying the bidder's qualifications with respect to Quality and Project Management.

- 4.1 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards quality management principles and standards in their offered products/ solutions and services.
- 4.2 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards information security management principles and standards in their offered products/ solutions and services.

### **SECTION 5: Warranty and Support Services**

This section should demonstrate the Bidder's responsiveness to the post-commissioning warranty and support services of the goods supplied, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements. All important aspects should be addressed in sufficient detail.

## Form F: Specifications Compliance Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

Goods and services to be Supplied (based on the <b>Technical Specifications</b> provided in Section 5a & Section 5b)		Your response Compliance with specifications	
		Comply (Yes/ No) (If No, indicate discrepancies)	Quoted Specifications
Required Items		Offered Items	
<b>Lot #01: Building Network (Wired &amp; Wireless)</b>			
1.	Aggregation Switch 24-Port Layer 3	(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	Access Switch 24-Port Layer 3		
3.	Access Switch 48-Port Layer 3		
4.	Access Point (Indoor)		
5.	Access Point (Outdoor)		
6.	Wireless Access Controller (WAC)		
7.	Unified Network Management Licenses – Switches		
8.	Unified Network Management Licenses – Access Points		
9.	Installation, Configuration & Commissioning		
<b>SUB-COMPONENT (LOT#1): PASSIVE WORK FOR 700 NODES</b>			
1.	Optical Fiber	(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	LAN Networking (Wired, Wireless & IP Surveillance)		
3.	Installation, Configuration & Commissioning		
<b>Lot #02: Building Security (IP Surveillance)</b>			
1.	Bullet Cameras	(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	Indoor Dome Cameras		
3.	Unified Network Management Licenses Surveillance Cameras		
4.	Installation, Configuration & Commissioning		
<b>Lot#03: Enhancement of Modular Data Center</b>			

1.	Design Requirements		<b>(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)</b>	
2.	Uninterrupted Power Backup System			
3.	In-row Precision Air Cooling System			
4.	Monitoring & Management Solution			
5.	Installation, Configuration & Commissioning			
<b>Lot#04: RFID Base Access Control Solution</b>				
<b>Visitor Management Information System</b>				
1.	CNIC Reader			
2.	RFID Card Collector/ Issuer			
3.	PC with Webcam and Accessories			
4.	Self-Service Kiosk RFID Card Collector/ Issuer			
5.	Tripod Turnstile Gate			
6.	Barrier with Access Control System			
7.	Vehicle RFID Tags			
8.	Long-range RFID Reader with Poles			
9.	Management Software			
<b>Building Access Control System</b>			<b>(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)</b>	
10.	Access Control Device			
11.	Electromagnetic Door Lock			
12.	No Touch Exit Switch			
13.	Emergency Exit Switch			
14.	Long Backup UPS			
15.	Enroller Reader/ Writer			
16.	Mifare Card			
17.	Client Machine (for RFID/Biometric card Enrollment)			
18.	Central Server			
19.	Central Access Control Management Utility software			
20.	Installation, Configuration & Commissioning			

## Form G: Price Schedule Form

(To be Submitted in a separate and sealed envelope duly marked as Financial Proposal)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-SPCAI-NW-ITB-114-22		

[The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided.]

We, the <<Name of Bidder>>, hereby submit our Financial Bid for the Supply of Items as below. We assure you of our full compliance to the required specifications, delivery schedule and other terms without any deviation and/ or reservations. We reiterate our acceptance to the terms and conditions of the RFP. Our Financial proposal as below is submitted for your kind consideration;

Quoted Items in compliance to the Technical Specifications as referred in Section – 5a and Section – 5b		Quantity (a)	Unit Price [in Rs.] (b)	GST [in Rs.] (c)	Total Price [in Rs.] $d=a*[b+c]$
<b>Lot #01: Building Network (Wired &amp; Wireless)</b>					
1.	Aggregation Switch 24-Port Layer 3	2			
2.	Access Switch 24-Port Layer 3	14			
3.	Access Switch 48-Port Layer 3	16			
4.	Access Point (Indoor)	60			
5.	Access Point (Outdoor)	05			
6.	Wireless Access Controller (WAC)	02			
7.	Unified Network Management Licenses – Switches	32			
8.	Unified Network Management Licenses – Access Points	65			
9.	Installation, Configuration & Commissioning	01			
<b>SUB-COMPONENT (LOT#1): PASSIVE WORK FOR 700 NODES</b>					
1.	<b>Optical Fiber Infrastructure</b>				
	24 Core Fiber Cable (m)	300			
	12 Core Fiber Cable (m)	200			
	Fiber Patch Cord (3 m)	50			
	24 Port ODF (Rack Mount)	5			
	Installation, Configuration & Commissioning	1			
2.	<b>LAN Networking (Wired, Wireless &amp; IP Surveillance)</b>				
	F/UTP CAT 6A (500 m)	65			
	Patch Cord (1 m) Cat 6A	600			
	Patch Cord (3 m) Cat 6A	600			
	Patch Cord (5 m) Cat 6A	50			
	42U Network Rack	5			
	19U Network Rack	5			
	Patch Panel 24 Port (3M) Cat 6A	30			
	Cable Manager Cat 6A	20			
	RJ-45 Connector Cat 6A	150			
	Face Plate with Box Cat 6A	600			
	I/O Cat 6A	600			
	PVC Duct 16 x 25 (ft.)	3000			
	PVC Duct 16 x 38 (ft.)	5000			
	PVC Duct 40 x 40 (ft.)	2000			
	Electrical cable 10mmx3c Armored (m)	500			
	Electrical Point for Network rack	5			
	Installation, Configuration & Commissioning	1			



<b>Lot #02: Building Security (IP Surveillance)</b>					
1.	Bullet Cameras	35			
2.	Indoor Dome Cameras	25			
3.	Unified Network Management Licenses Surveillance Cameras	60			
4.	Installation, Configuration & Commissioning	1			
<b>Lot#03: Enhancement of Modular Data Center</b>					
1.	Design Requirements	1			
2.	Uninterrupted Power Backup System	1			
3.	In-row Precision Air Cooling System	1			
4.	Monitoring & Management Solution	1			
5.	Installation, Configuration & Commissioning	1			
<b>Lot#04: RFID Base Access Control Solution</b>					
1.	CNIC Reader	1			
2.	RFID Card Collector/ Issuer	1			
3.	PC with Webcam and Accessories	1			
4.	Self-Service Kiosk RFID Card Collector/ Issuer	1			
5.	Tripod Turnstile Gate	3			
6.	Barrier with Access Control System	2			
7.	Vehicle RFID Tags	100			
8.	Long-range RFID Reader with Poles	2			
9.	Management Software	1			
10.	Access Control Device	20			
11.	Electromagnetic Door Lock	20			
12.	No Touch Exit Switch	6			
13.	Emergency Exit Switch	8			
14.	Long Backup UPS	14			
15.	Enroller Reader/ Writer	7			
16.	Mifare Card	1000			
17.	Client Machine (for RFID/Biometric card Enrollment)	7			
18.	Central Server	1			
19.	Central Access Control Management Utility software	1			
20.	Installation, Configuration & Commissioning	14			

### **Extended Warranty Price (at discretion of PAF-IAST)**

<b>Annual Warranty &amp; Support Services beyond Standard Warranty of the Quoted Items</b>		<b>2<sup>nd</sup> Year (in USD)</b>	<b>3<sup>rd</sup> Year (in USD)</b>	<b>4<sup>th</sup> Year (in USD)</b>	<b>5<sup>th</sup> Year (in USD)</b>
<b>Lot #01: Building Network (Wired &amp; Wireless)</b>					
1.	Aggregation Switch 24-Port Layer 3				
2.	Access Switch 24-Port Layer 3				
3.	Access Switch 48-Port Layer 3				
4.	Access Point (Indoor)				
5.	Access Point (Outdoor)				
6.	Wireless Access Controller (WAC)				
<b>Lot #02: Building Security (IP Surveillance)</b>					
1.	Bullet Cameras				
2.	Indoor Dome Cameras				
<b>Lot#03: Enhancement of Modular Data Center</b>					
1.	Design Requirements				
2.	Uninterrupted Power Backup System				
3.	In-row Precision Air Cooling System				
<b>Lot#04: RFID Base Access Control Solution</b>					

1.	CNIC Reader				
2.	RFID Card Collector/ Issuer				
3.	PC with Webcam and Accessories				
4.	Self-Service Kiosk RFID Card Collector/ Issuer				
5.	Tripod Turnstile Gate				
6.	Barrier with Access Control System				
7.	Vehicle RFID Tags				
8.	Long-range RFID Reader with Poles				
9.	Management Software				
10.	Access Control Device				
11.	Electromagnetic Door Lock				
12.	No Touch Exit Switch				
13.	Emergency Exit Switch				
14.	Long Backup UPS				
15.	Enroller Reader/ Writer				
16.	Mifare Card				
17.	Client Machine (for RFID/Biometric card Enrollment)				
18.	Central Server				
19.	Central Access Control Management Utility software				

Total Bid Value in Figures (including Extended Warranty Price): \_\_\_\_\_

Total Bid Value in words (including Extended Warranty Price): \_\_\_\_\_

Name & Designation of Authorized Person: \_\_\_\_\_

Signature: \_\_\_\_\_ (Please affix company stamp here)

**Note: Quoted price must be inclusive of all taxes and duties.**

## Annex – I: Integrity Pact

The Bidders will be required to submit the below text on stamp paper after filling in the details and duly signed as well as stamped, as part of their Technical Proposal.

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC**  
**PAYABLE BY THE SUPPLIER OF GOODS, SERVICES & WORK IN CONTRACTS WORTH**  
**RS. 10.0 MILLION OR MORE**

(To be filled by the bidder as a part of technical proposal)

Contract Number: \_\_\_\_\_ Dated: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

\_\_\_\_\_ hereby declare that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business partner.

Without limiting the generality of the forgoing, \_\_\_\_\_ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any nature or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultant fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatever from GoP, except that which has been expressly declared pursuant hereto.

\_\_\_\_\_ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

\_\_\_\_\_ accept full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, \_\_\_\_\_ agrees to identify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by \_\_\_\_\_ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever from GoP.

\_\_\_\_\_

[Buyer] [Seller / Supplier]

## **Annex – II: Draft Contract Sample**

Available at PAF: IAST website at <http://www.paf-iastr.edu.pk/downloads>