



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

KHYBER PAKHTUNKHWA

REQUEST FOR PROPOSAL (RFP) FOR "SUPPLY, INSTALLATION/ DEPLOYMENT & COMMISSIONING OF DATA CENTER, CAMPUS NETWORK (wired and wireless), IP SURVEILLANCE & VDIs"

Submission of Bids: Wednesday the March 25, 2020 @ 12:00 noon

Opening of Bids: Wednesday the March 25, 2020 @ 12:30 pm

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Section 1. Letter of Invitation

The Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF- IAST), Hairpur invites sealed bids from interested Reputed firms/ companies for the “SUPPLY, INSTALLATION/ DEPLOYMENT & COMMISSIONING OF DATA CENTER, CAMPUS NETWORK (wired and wireless), IP SURVEILLANCE & VDIs” comprising of following components:

COMPONENTS	Description	Quantity
Component #1	Campus Core Network (Wired)	2000 nodes
Component #2	Campus WiFi Network (Wireless)	175 APs (indoor and outdoor)
Component #3	Data Center	6 Racks (expandable)
Component #4	Campus Security (IP Surveillance)	280 Cameras (indoor and outdoor)
Component #5	Virtual Desktop Interface (VDIs)	300 (with Thin Client Terminals)

The bidder must be registered with SECP/ Registrar 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). Tender document can also be downloaded from <http://www.paf-iaast.edu.pk/> free of cost, however, interested bidders will be required to have registered copy purchased from PAF-IAST, in order to participate in tender process.

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 by Wednesday the March 25, 2020 by 1200 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 1230 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 KPPRA Rule 6 (2)(b) “Single Stage, Two Envelope Procedure”.

This advertisement is also available on PAF: IAST and PPRA websites <http://www.paf-iaast.edu.pk/> & <http://www.kppra.org.pk>.

Project Director

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

Haripur – Khyber Pakhtunkhwa

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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 6 (2)(b) "Single Stage, Two Envelope Procedure" of Khyber Pakhtunkhwa Public Procurement Rules, 2014, as amended from time to time and instructions of the Government of Khyber Pakhtunkhwa received during the completion of the project.</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 Sales Tax and Income Tax Department as well as with the Khyber Pakhtunkhwa Revenue Authority.</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. PREPARATION OF BIDS	
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"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after PAF-IAST has issued an award; or 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.
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"> 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 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.
14. Joint Venture, Consortium or Association	<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 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. <u>If allowed in this Tender document/ RFP, All</u> entities that comprise the JV, Consortium or Association shall be</p>

	<p>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"> a) Those that were undertaken together by the JV, Consortium or Association; and b) Those that were undertaken by the individual entities of the JV, Consortium or Association. <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>
<p>15. Only One Bid</p>	<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"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or c) they have the same legal representative for purposes of this ITB; or 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.
<p>16. Bid Validity Period</p>	<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>
<p>17. Extension of Bid Validity Period</p>	<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	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.
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 KPPRA Rule 6 (2)(b).</p> <p>22.2 The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the Forms (A – F) and supporting documents in accordance with requirements in the BDS, shall be marked as "Technical Proposal". Whereas, the other envelope containing the Form G: Price Schedule Form shall be marked as "Financial Proposal".</p> <p>22.3 The Bid Security as referred in BDS must be placed in the "Technical Proposal" but in a duly sealed envelope and marked as "Bid Security". Bid security envelop 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> <ol style="list-style-type: none"> i. Bear the name of the Bidder; ii. Be addressed to PAF - IAST as specified in the BDS; and iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS. <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>
<p>23. Deadline for Submission of Bids and Late Bids</p>	<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>
<p>24. Withdrawal, Substitution, and Modification of Bids</p>	<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>
<p>25. Bid Opening</p>	<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">a) They are not included in the list of blacklisted or barred companies published on KPPRA website, federal or any provincial government department;b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,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;d) They are capable to comply fully with the General Terms and Conditions of Contract;e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; andf) They have a record of timely and satisfactory performance with their clients.
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">a) Verification of accuracy, correctness and authenticity of information provided by the Bidder;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;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;d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of

	<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>
31. Clarification of Bids	<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>
32. Responsiveness of Bid	<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>
33. Right to Accept, Reject, Any or All Bids	<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>
34. Nonconformities, Repairable Errors and Omissions	<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.
E. AWARD OF CONTRACT	
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"> a) Preliminary Examination including Technical Specifications and other compliances b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Evaluation of prices <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 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 proper authority in 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 will closely collaborate 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 will be established in Pakistan with many foreign universities giving degrees to students who study in it.</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 across the campus, 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>Supply, Installation/ Deployment and Commissioning of Data Center, Campus Network (Wired & Wireless), IP Surveillance & VDIs</p> <p>The required items grouped in various components as referred in Section – 5 have been sought on Turn-Key Basis by PAF-IAST from a 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"> • Furnish, install and configure network components as identified. • QoS controls to allow for expansion of VOIP capabilities. • Support for video-streaming and video-distribution over the LAN • Stricter inter-VLAN access rules to improve network and data security -- identify, isolate and control illegitimate traffic or system anomalies. • Enable QOS to guarantee bandwidth allocation and prioritization for mission critical applications and de-prioritization of less critical network traffic. • Provide the necessary, scalable network capacity to support instructional technologies for the next five years, including but not limited to, HD/ UHD Smart Classrooms, videoconferencing, internet bandwidth transport support of 1 Gb and 10 Gb (upgradable) on campus network traffic support. • Spare parts inventory that supports an appropriate balance of downtime risk, investment cost and procurement latency of warranty replacement components.

			<p>Post-Commissioning Warranty and Support Services</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 format of Form-G, on annual payment basis. However, it will be at sole discretion of PAF-IAST to avail additional Warranty and Support Services in subsequent year(s) or otherwise.</p>
4.		Procurement Method	KPPRA Rule 6(2)(b)
5.	7	Language of the Bid	English
6.	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.
7.	20	Alternative Bids	Not Allowed.
8.	21	Pre-Bid conference	Will be held on Wednesday the March 1004 , 2020 at 11 03 0 hrs at PAF- IAST, Khanpur Road, Mang, Haripur – Khyber Pakhtunkhwa
9.	16	Bid Validity Period	120 days
10.	13	Bid Security/ Earnest Money (Refundable)	<p><u>Required in the amount of: 2% of the Bid Value.</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 CDR in favor of the Project Director, PAF-IAST</p>
11.	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p>Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.</p>
12.	40	Performance Security	Within one week of issuance of Lol/ Purchase Order and well prior to the signing of Contract, as 10% of the Contract value for the duration of Warranty period referred in RFP.
13.	12	Currency of Bid	Pakistani Rupees (PKR)
14.	31	Deadline for submitting requests for clarifications/ questions	5 days before the submission deadline
15.	31	Contact Details for submitting clarifications/ questions	Focal Person in PAF: IAST: Mr. Anwar Amjad 0995-645112

16.	18, 19, and 21	Manner of Disseminating Supplemental Information to the ITB and responses/ clarifications to queries	Direct communication to prospective Bidders by email and/ or Posting on the PAF: IAST website: procurement@paf-iaast.edu.pk http://www.paf-iaast.edu.pk/												
17.	23	Deadline for Submission	Wednesday the March 25, 2020 on or before 12:00 Noon (PST)												
18.	22	Number of Set(s) of Bid	Technical Proposal(s) - One (01) Original - Two (02) Copies - Soft copy of Technical Proposal in a USB Flash Drive Financial Proposal(s) - One (01) Original												
19.	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/ Hand Delivery only												
20.	22	Bid Submission Address	<input checked="" type="checkbox"/> By Courier/ Hand Delivery Convener Procurement Committee, PAF- IAST, Mang, Haripur												
21.	22	Electronic submission (email) requirements	Not Allowed												
22.	25	Date, time and venue for the opening of bid	Date and Time: Wednesday the March 25, 2020 at 12:30 PM Venue: Conference Room, PAF-IAST, Mang, Haripur												
23.	27, 36	Evaluation Method	Eligible and qualified bids meeting the PAF- IAST requirements and technically responsive as stipulated in this ITB												
24.		Evaluation Method for the Award of Contract	Lowest priced technically responsive.												
25.		Expected date for commencement of Contract	April 2020												
26.		Maximum expected duration of Contract	60 months												
27.	35	PAF: IAST will award the contract to:	One Bidder Only												
28.	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.												
29.	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><u>21</u> weeks</td> <td><u>611</u> weeks</td> <td>1 week</td> </tr> <tr> <td>Active Components</td> <td><u>810</u> weeks</td> <td>2 weeks</td> <td>1 week</td> </tr> </tbody> </table>		Delivery	Installation	Commissioning	Passive Components	<u>21</u> weeks	<u>611</u> weeks	1 week	Active Components	<u>810</u> weeks	2 weeks	1 week
	Delivery	Installation	Commissioning												
Passive Components	<u>21</u> weeks	<u>611</u> weeks	1 week												
Active Components	<u>810</u> weeks	2 weeks	1 week												
<u>30.</u>	<u>47</u>	<u>Payment Schedule</u>	<u>Payment on Delivery of Equipment: 60%</u> <u>Payment on Commissioning: 40% (Component-wise and subject to Retention money against 1st year Warranty & Support Services)</u>												

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. If the Bid is submitted as a Joint Venture, there should be no more than three (03) companies in the Joint Venture and each company should meet the minimum criteria individually, unless otherwise specified.

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.	Bidder's Status	Participating as <input type="checkbox"/> Individual Company <input type="checkbox"/> JV/ Consortium	Form B: Joint Venture/ Consortium/ Association Information Form
2.	Legal Status	Bidder is a legally registered entity in Pakistan and must be registered with SECP. Bidder is/ are also registered with FBR for Income Tax and Sales Tax. Bidder/JV partner(s) must be Active Tax payers and Listed.	Form C: Bidder Information Form
3.	Location of Offices	Bidder (Lead Bidder) has declared office in Islamabad/ Rawalpindi/ Peshawar/ Abbottabad since Last Five (05) years.	Form C: Bidder Information Form
4.	Principal(s)' Authorization	Bidder (Lead Bidder) or at least one member of JV/ Consortium/ Association must be Authorized Partner/ Reseller/ Dealer for the supply and services of <u>at least three (03) quoted component(s) including Component #5.</u>	Form C: Bidder Information Form
5.	Principal's Local Presence & Parts' Availability	Principal should have local presence <u>and registered office</u> 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	Form C: Bidder Information Form
6.	Company in Operation	Bidder (Lead Bidder) is in operation for at least Ten (10) years.	Form C: Bidder Information Form
7.	ISO Certification	Bidder/Lead Bidder in Case of JV must be 9001: 2008 Certified	Form C: Bidder Information Form
8.	Financial Strength	Average annual turnover over last 3 years Rs. 3,000 million or equivalent in USD from ICT Products and Services (as per the published Audit Report) <u>for both Principal & Bidder individually</u>	Form D: Qualification Form

		<i>(For JV/ Consortium/ Association, all Parties cumulatively should meet requirement, however each partner should have an average turnover of Rs.1,000 million individually).</i>	
9.	Relevant Experience	Min. No. of Projects of similar nature/ value/ complexity in last 3 years At least Ten (10) projects, with a minimum of One (01) project in each of the identified Components (separately or combined), and at least two (02) projects of any of these Components in Education sector <i>(For JV/Consortium/ Association, all Parties cumulatively should meet requirement. However, at least three (03) components including Component #5 should be on Lead Bidder's credit).</i>	Form D: Qualification Form Form E: Technical Proposal Form
10.	Eligibility	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
11.	Bankruptcy	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
12.	Certificates and Licenses	Bidder(s) related: i Certificate of Registration of the business ii Certificate of Registration with FBR for both Income Tax and Sales Tax iii Certified Partner Status issued by Principal stating certified competencies for the proposed solution iv A proofing document confirms the offered Warranty & Post-commissioning Support and Services for at least Five (05) years within the quoted Unit Price(s). 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)
Section – I: General Corporate Profile			25		
13.	Bidder's Footprints	Number of offices/ services centers across the country	5	4+ offices fully operational for last five (05) year	Form C: Bidder Information Form
			3	3 – 4 offices fully operational for last five (05) year	
			1	< 3 offices fully operational for last five (05) year	
14.	Bidder's Human Resource Strength	Number of full-time employees (documentary proof required)	8	300+ employees with at least 20% Technical staff	Form C: Bidder Information Form
			6	200 – 300 employees with at least 20% Technical staff	
			4	100 – 199 employees with at least 20% Technical staff	
			2	50 – 99 employees with at least 20% Technical staff	
15.	Financial Standing	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	
16.	Annual Tax Paid (Principal & Bidder Individually) in Pakistan	Annual Tax Paid averaged over last 3 years	5	Rs. 301 million or more	Form D: Qualification Form
			3	Rs. 101 – 300 million	
			2	Rs. 100 million	
Section – II: Business Profile			30		
17.	Relevant Experience	Project(s) of similar nature, value and complexity completed in last three (03) years	7	Min. No. of Projects + 5	Form D: Qualification Form
			5	Min. No. of Projects + 3	
			3	Min. No. of Projects + 2	
18.	Public Sector Experience	Project(s) delivered to government organizations during last three (03) years	8	3+ Projects	Form D: Qualification Form
			6	3 Projects	
			4	2 Projects	
19.	Education Sector Experience	Project(s) completed at education institutions during last three (03) years	8	2+ Projects	Form D: Qualification Form
			6	2 Projects	
			4	1 Project	
20.	Experience in Haripur/ Abbottabad	Project(s) completed in Haripur/ Abbottabad	7	Project worth 50 million in Haripur	Form D: Qualification Form
			5	Project worth 30 million in Haripur	
Section – III: Manufacturer's/ Product's Strengths			10		
21.	Manufacturer's Global Presence	Countries having supplied the same Quoted items corresponding to each component(s)	5	No. of countries identified by Bid in consideration/ Max. No. of countries identified in all Bids * 10	Form E: Project Proposal Form
22.	Manufacturer's Products Portfolio	Various Products produced by the manufacturer beyond quoted items	5	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: Registration & Certifications			10		
23.	ISO 9001 Certified	Bidder or the Lead Bidder in case of JV should be Certified	5	Copy of Valid Certificate	Form E: Project Proposal Form
24.	Certification specific to quoted Products/ Solution	Bidder or any of the JV Partners should possess any of them	5	Copy of Valid Certificate	Form E: Project Proposal Form
Section – VI: Presentation on Project Proposal			25		
25.	Project Management Approach	Overall approach towards planning and implementing the project.	8	To be assigned by the Technical Committee	Form E: Project Proposal Form
26.	Post-Commissioning Services	Overall approach towards after-sale support and services.	7	To be assigned by the Technical Committee	Form E: Project Proposal Form

27.	Distinguishing Features	Distinguishing features of the quoted Product and/ or overall project proposed.	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 70 percent 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 F. 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 least-cost basis .			

Section 5a: Technical Specifications of the Required Goods

COMPONENT #1: CAMPUS CORE NETWORK (Wired)		
Router	System Parameters	
	Forwarding Performance	10Gbps or higher
	Processor	16 cores or more
	IP Sec Performance	6Gbps or higher
	Memory	8GB or more
	No. & Capacity of SFP Ports	14 x 10GE SFP+ (with backward compatibility) WAN/LAN ports
	No. & Capacity of RJ45 Ports	10 x 1GE WAN/ LAN ports
	Protocols Support	
	Unicast	IPv4 Unicast: Routing policy, static route, RIP, OSPF, IS-IS and BGP
	Multicast	PIM DM, PIM SM, MSDP, IGMPv1/v2/v3, MBGP
	MPLS	LDP, MPLS L3 VPN, static LSP, dynamic LSP, MPLS TE, IP FRR, LDP FRR, MPLS L3 VPN Must support policy-based routing
	VPN	IPSec VPN, GRE VPN, DSVPN <u>or equivalent</u> , A2A VPN, L2TP VPN, <u>Smart VPN</u>
	QoS	DiffServ, MPLS QoS, priority mapping, CAR, congestion avoidance, congestion management (LAN interface: SP/WRR/SP + WRR; WAN interface: PQ/CBWFQ), Hierarchical QoS
	Basic Features	
	Server/ Client functions	DHCP, PPPoE and NAT
	Power Supply	Redundant Power Supply
	Security Features	
	Type	ACL, domain based Stateful firewall
	Supported Authentication	802.1x, AAA, RADIUS, HWTACACS
	Protections	Broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, and IP source tracing
	Firewall	System Parameters
		Filtering Throughput
IP Sec VPN Throughput		12 Gbps or more
IPS Throughput		8 Gbps or more
SSL Inspection Throughput		2 Gbps or more
Concurrent Sessions		7 million or more
Concurrent SSL VPN Users		2,000 users <u>maximum, currently for 100 users licenses</u>
No. of new connections per second		150,000 or more
Applications Support		5,000 or more
VLANs Support Capacity		4,000 or more
Storage Support		1 TB HDD/ 200 GB SSD or higher
No. & Capacity of SFP Ports		6 x 1GE SFP and 6 x 10GE SFP+ (along with 4 SFP+ multimode)
No. & Capacity of RJ45 Ports		16 x 1GE RJ45
Protocols Support		

	Routing	RIP, OSPF, IS-IS, BGP
	VPN	IPsec VPN, SSL VPN, L2TP VPN, and GRE
	Basic Features	
	Integrated Functions	DHCP, PPPoE and NAT
	Intelligent Routing	uplink selection based on multiple algorithms
	Power Supply	Redundant Power Supply
Core Switch	System Parameters	
	Forwarding Performance	2,500 Mpps or more
	Switching Capacity	3 Tbps or more
	WLAN Controller	Integrated with support of 192 Aps or more <u>or provide separate controller to support the required number of APs</u>
	Line Card Slot(s)	3 Line cards besides Service/ Supervisor Engine slots
	Interfaces	
	No. & Capacity of SFP Ports	8 x 40GE QSFP+ ports with MM 10 KM SM SFPs 24 x 10GE SFP+ ports along with 10KM SM SFPs 24 x 1GE SFP ports along with 10KM SM SFPs
	Stacking	Should have Stacking card with stacking cable
	Scalability	Should have capability to provide 100GE interfaces for future
	Basic Features	
	MAC Address Table	Should support 3296 3296K MAC address entries (static & dynamic) Automatic learning & Aging of MAC address
	VLANs	4K VLANs, Default VLAN and voice VLAN, MUX VLAN <u>or equivalent</u> , VLAN assignment based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	Supervisor's engines	Should have at least Two (02) Supervisor's engines
	Protocols Support	
	Routing	Static routes, RIPv1/ v2, OSPF, IS-IS, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP4, BGP4+, VRRP, and VRRP6
	VPN	IPsec VPN, SSL VPN, L2TP VPN, and GRE
	Reliability	
	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
	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Rate limiting	On protocol packets sending to the CPU
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED, L PQ, WDRR, WRR
	Applications Switch	System Parameters
Forwarding Performance		400 Mpps or more
Switching Capacity		900 Gbps or more
Interfaces		
No. & Capacity of SFPs		24 10G SFP+ and 2 x 40G SFP+ ports along with 10KM SM SFPs
Basic Features		
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 <u>or equivalent</u> , VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	Protocols Support	
	Routing	Static routes, RIPv1/ v2, OSPF, IS-IS, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP4, BGP4+, VRRP, and VRRP6
	<u>VPN</u>	<u>IPsec-VPN, SSL-VPN, L2TP-VPN, and GRE</u>
	Reliability	
	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
	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED, PQ, WDRR, WRR
Aggregation Switch 24-port <u>SFP+</u> Layer 3	System Parameters	
	Forwarding Performance	400 Mpps or more
	Switching Capacity	900 Gbps or more
	Interfaces	
	No. & Capacity of SFPs	24 10G SFP+ and 2 x 40G SFP+ ports along with 10KM SM SFPs
	Basic Features	
	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 <u>or equivalent</u> , VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
	Protocols Support	
	Routing	Static routes, RIPv1/ v2, OSPF, IS-IS, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP4, BGP4+, VRRP, and VRRP6
	<u>VPN</u>	<u>IPsec-VPN, SSL-VPN, L2TP-VPN, and GRE</u>
	Reliability	
	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
	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED, PQ, WDRR, WRR

Aggregation Switch 24-port 10GE Layer 3	System Parameters	
	Forwarding Performance	400 Mpps or more
	Switching Capacity	900 Gbps or more
	Interfaces	
	No. & Capacity of SFPs	24 x 100M/1G/2.5G/5G/10G Base-T Ethernet ports (POE++), 2 x 40GE QSFP+ or 2 x 100GE QSFP28 ports and support 8*10GE SFP+ card
	Basic Features	
	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
	Protocols Support	
	Routing	Static routes, RIPv1/ v2, OSPF, RIPv6, OSPF, OSPFv3
	Reliability	
	Protection	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
	Security Features	
	Authentication	802.1x, MAC address and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED/ PQ, WDRR, WRR
	Access Switch 24-port Layer 3	System Parameters
Forwarding Performance		90 Mpps or more
Switching Capacity		120 Gbps or more
Interfaces		
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
Basic Features		
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
Protocols Support		
Routing		Static routes, RIPv1/ v2, OSPF, IS-IS, RIPv6, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP4, BGP4+, VRRP, and VRRP6
VPN		IPsec VPN, SSL VPN, L2TP VPN, and GRE
Reliability		
Protection		BFD & VRRP, RRPP, Single RRPP ring, 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	

	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED, PQ, WDRR, WRR
Access Switch 48-port Layer 3	System Parameters	
	Forwarding Performance	130 Mpps or more
	Switching Capacity	160 Gbps or more
	Interfaces	
	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
	Basic Features	
	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
	Protocols Support	
	Routing	Static routes, RIPv1/ v2, OSPF, IS-IS , RIPng, OSPF, OSPFv3, IS-IS , IS-ISv6 , BGP4 , BGP4+ , VRRP , and VRRP6
	VPN	IPsec VPN , SSL VPN , L2TP VPN , and GRE
	Reliability	
	Protection	BFD & VRRP , RRPP , Single RRPP ring , 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
	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
	Quality of Service (QoS)/ Access Control List	
	Traffic Classification	Based on ACLs & priorities
	Traffic Shaping	On egress interface
	Others	CAR, WRED, PQ, WDRR, WRR
Industrial Rugged Switches	System Parameters	
	Switching Capacity	100 Gbps or more
	Industrial Grade Compliance	IP6855
	Ports Characteristics	POE+
	Interfaces	
	No. & Capacity of SFPs	2 x SFP± (GE/FE), 8 x GE (PoE / PoE+) with 2 x SFP+ SM 10KM SFP module
	Basic Features	
	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, VLAN based on MAC addresses, protocols, IP subnets and interfaces
	Power Supply	Must have redundant power supplies
Protocols Support		

	Routing	Static routes, RIPv1/ v2, RIPv2, OSPF, OSPFv3
	VPN	IPsec VPN, SSL VPN, L2TP VPN, and GRE
	Reliability	
	Protection	BFD & VRRP, RRPP, Single RRPP ring , Smart Link and Smart Link multi-instance <u>or equivalent</u> , providing millisecond-level protection switchover
	Standards	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s), IP67 or higher
	Types	BPDU protection, root protection, and loop protection
	Security Features	
	Authentication	802.1x, MAC address, and Portal authentication
	Protocols	SSH v2.0, HTTPS
Installation, Configuration & Commissioning	Complete installation of all equipment/ components pertaining to Campus Core Network (Wired) as per manufacturer's guidelines, and reinstate the site in all civil aspects. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.	

SUB-COMPONENT: PASSIVE WORK (Fiber, LAN & DC Cabling) FOR CAMPUS NETWORK

Optical Fiber Infrastructure	Fiber Cable	
	48 Core	Baynet, Armored 3M/ Schneider/ iconnect/ Molex or equivalent
	24 Core	Baynet, Armored 3M/ Schneider/ iconnect/ Molex or equivalent
	12 Core	Baynet, Armored 3M/ Schneider/ iconnect/ Molex or equivalent
	Fiber Patch Cord (3 m)	Platinum
	ODF	
	12 Port (Outdoor)	Platinum with coupler
	24 Port (Rack Mount)	Platinum with coupler
	Miscellaneous	
	Media Converter (Fiber to Ethernet)	Gigabit, Platinum
	Patch Cord (1 m) Cat 6A	3M/ Schneider iconnect/ or equivalent
	Rack 4U (Outdoor & Waterproof)	Titan made
LAN Networking (Wired, Wireless & VDIs)	UTP Cable	
	CAT 6A (500 m)	3M/Schneider iconnect/ -or equivalent F/UTP
	Patch Cord	
	Fiber Patch Cord (30 m)	Platinum
	Patch Cord (1 m) Cat 6A	3M/Schneider iconnect/ or equivalent
	Patch Cord (3 m) Cat 6A	3M/Schneider iconnect/ or equivalent
	Miscellaneous	
	9U 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	Adamjee or equivalent
	Cable Tray 4"x4"	Local Made, 16 swg, powder coated with all accessories
Electrical Point for Network rack	Fast cable with Clipsal Socket	
Data Center Networking	Fiber Cable	
	24 Core	Baynet, Armored 3M/ Schneider/ iconnect/ Molex or equivalent
	12 Core	Baynet, Armored 3M/ Schneider/ iconnect/ Molex or equivalent
	ODF	
	12 Port (Outdoor)	Platinum with coupler
	24 Port (Rack Mount)	Platinum with coupler
	Miscellaneous	
	Patch Cord (1 m) CAT 6A	3M/Schneider/ iconnect/ or equivalent
	Patch Cord (3 m) CAT 6A	3M/Schneider/ iconnect/ or equivalent
	Rack 4U (Outdoor & Waterproof)	Titan made
	Cable Manager	3M/Schneider/ iconnect/ or equivalent , Metal made
	Earth pit for UPS and SRG	Earth should be less than 1 Ohm with copper bus bar and main hole with cover as per standard
Network (PoE) Service Switch	8-Port	

	Electrical Panel		
	Main electrical Panel for distribution of UPS, Cooling and others utilities	Local Manufactured with all metering devices, Surge protection, 16 swg with powder coating	
	ATS Panel 100 Kva	Local Manufactured with all metering devices, 16 swg with powder coating	
	Door Access System		
	Biometric with Time and Attendance control system	3 in 1 Fingerprint/RFID Card/PIN Recognition, EM Lock (600Lbs), ZL Bracket, Exit Push Button, POWER Supply, installation and integration with DCIM. With 100 RFID Cards. & accessories covered (open PVC Conduit +Network, Testing & Commissioning Zkteco make, 3 in 1 with Magnetic lock including software	
	Supply & installation of Emergency Light c/w battery pack and accessories.	18 watt led type with battery pack	
	Fire Detection & Suppression System		
	Novec 1230 with panel, sound alarm, Smoke detector	Novec 1230_with extinguisher panel and gas cylinder	
	IP Surveillance related Networking	UTP Cabling	
		CAT 6A (500 m)	3M/Schneider/ <u>iconnect or equivalent</u> F/UTP
Cable Manager		3M/Schneider/ <u>iconnect or equivalent</u> , Metal made	
Poles			
Pole for Security Camera with light		Locally manufactured with 3 inch size round with base	
Pole for PTZ Camera		Locally manufactured with 3 inch size round with base	
Miscellaneous			
Security LED Light 30Watt		Philips	
Breaker for Light		Schneider <u>or equivalent</u>	
Light Sensor		(Day/ Night Sensor)	
Waterproof box 4"x4"		Locally manufactured	
Digging Soft/Hard		Digging and back drilling with sand and bricks up to 1 meter depth with marking	
Concrete foundation for Poles		1feetx1feetx2feet depth concrete	
Electrical box 8x10 water roof		Local Manufacturer	
Electrical cable 10mmx3c Armored for Security camera		Fast cable <u>or equivalent</u>	
55" Smart UHD LED		Samsung	
Network Keyboard,7", 256 DVR/ Network Cameras/ DOME (DS-1100KI)		Hikvision/ Dahua <u>or equivalent</u>	

Civil Works	Fire rate Door	
	Fire rated metal door double leaf of at least 7.5ft. height and 4ft wide with frame, panic bar, door handle etc. for Data Center Entrance made of 16 Swg	4 feet wide, 7.5 highest with 30 mints fire retardant, with installation, complete in all respect
	Fire rated metal single leaf. Made of 16swg gauge. Door with frame, door closer, panic lock. Size 7.5" x 3' ft. Emergency Exit.	3 feet wide, 7.5 highest with 30 mints fire retardant, with installation, complete in all respect.
	Anti-static Vinyle flooring with copper strip imported	China made with copper strip mesh connected with earth bar
	Emergency exit Sign	China Made with battery pack
	Removal of debris from site and dumped outside as per the client requirement.	services
	Also take necessary measure to avoid condensation through wall and floor, prevention of seepage for walls of DC)	services
	Concealed DC Room to maintain dust free environment	services
	Cooling	
	Field Piping of InRackCooling Outdoor Units covered with Liquid and Hot gas hard copper piping in powder coated trays c/,v, nitrogen, refrigerant charging, water tank etc. all accessories and fittings Upto 25-30 Feet Each 11kW Units.	USA make, water drain insulated, water tank with filter, cable try powder coated, pressure testing with nitrogen, vacuuming and Gas charging, complete in all respect
Installation, Configuration & Commissioning	Complete installation of all equipment/ components pertaining to Passive Work for the Campus Network facilities as per manufacturer's guidelines, and reinstate the site in all civil aspects. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.	

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.

COMPONENT #2: CAMPUS WiFi NETWORK (Wireless)

Access Point (Indoor)	WLAN Features	
	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.
	Interfaces	
	Uplink	1 x 1GE or more RJ45 port(s) <u>1 x 5GE self-adaptive Ethernet interface (RJ45 x 1) or 1 x 10GE self-adaptive Ethernet interface (RJ45 x 1)</u>
	Antenna	Built-in
	Basic Features	
	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/11bt
	Security Features	
	Encryption	Both Hardware and IPsec
	Supported Authentication	802.1x, AAA , RADIUS , HWTACACS , <u>Portal Authentication</u>
	Protections	Broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, and IP source tracing <u>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</u>

Access Point (Indoor) Multi-Gigabit	WLAN Features		
	Standard Compliance	IEEE 802.11ac, 802.11n, 802.11ax	
	System data rate	6 Gbps or more	
	MIMO	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.	
	Interfaces		
	Uplink	1 x 10GE or more RJ45 port(s) (backward compatible with 1GE) 1 x SFP+ Optical port	
	Antenna	Built-in	
	Basic Features		
	No. of SSIDs	15 or more per radio	
	Radios	2.4 GHz and 5 GHz frequency bands	
	No. of Concurrent Users	800 or more	
	Power Supply	IEEE 802.113at/bt	
	Security Features		
	Encryption	Both Hardware and IPsec	
	Supported Authentication	802.1x, AAA, RADIUS, HWTACACS, Portal Authentication	
	Protections	Broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, and IP source tracing 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	
	Access Point (Outdoor)	WLAN Features	
		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.	
Interfaces			
Uplink		1 x 10GE or more RJ45 port(s) (backward compatible with 1GE) 1 x SFP+ Optical port	
Antenna		Built-in	
Basic Features			
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 802.113at/bt	
Security Features			
Encryption	Both Hardware and IPsec		

	Supported Authentication	802.1x, AAA, RADIUS, HWTACACS
	Protections	Broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, and IP source tracing 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
Unified Network Management Solution	System Parameters	
	Hardware	Twice the minimum required specifications per NMS or more
	Software	NMS of same brand as of wired & wireless components
	Basic Features	
	Views	Clearly and easily view the status, performance, and alarm information about managed resources. Some key modules are displayed on the home page by default
	Interface	User-friendly, visual, fast, and easy-to-operate https/ web based graphical user interfaces (GUIs) for all browsers without installing any plugin
	Customization	Customized management views Customize the content and style of the home page for the portal
	Management Features	
	Auto Discovery	Automatically discovers network devices based on communication parameters, such as IP address segment and SNMP, and adds the network devices to the network management system. Automatically discovers the layer-2 and layer-3 links and virtual local area network (VLAN) topology and supports the topology linkage functions, including real-time performance, resource management, and alarm linkage to device information.
	Key Performance Indicators	Dashboard showing network-wide resource information, such as total number of resources of each type, resource usage, and key indicators. The key indicators include CPU usage, memory usage, and device response time, access rate, interface bandwidth, and voice resource usage, etc.
	Manageability	Categorizes multiple devices into a group to perform bulk operations on them.
	Monitoring	Supports real-time monitoring and unified browsing of network-wide alarms, provides various alarm severities (for example, critical, major, minor, and warning) that can be distinguished by color or text, and takes specific measures for alarms of different severities.
	Alerting	Notifies users of alarms in several ways, such as real-time alarm notification (alarm panel), alarm sound and email.
	Statistics	Monitors performance indicators and centrally displays the monitored statistics on the dashboard. Displays the wireless network status by collecting statistics on the device status, network resources, interference, area, and service type, such as AP channel usage, numbers of APs and users counted by area, number of client radio frequency (RF) types, number of access users counted by SSID, and user access records.
	Required No. of Licenses	
	Network Nodes	At least 100
	WLAN Nodes	At least 175
Surveillance Nodes	At least 300	

Network Access Controller Solution	Authentication Services	
	Systems Capacity	20,000 concurrent online users or more on a single node
	Users Authentication	AD, LDAP & RADIUS based username and password authentication and association for identity authentication. Dynamic role matching to map attributes to roles and authorize users by role.
	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	Integrate and associate with multiple AD domains and with multiple AD/LDAP servers. User account and user group synchronization based on the OU or Group in the AD/ LDAP domains Multiple synchronization choice on whether synchronize the user or user group information into the Access Controller.
	Role Management	
	Authorization	Support the tree-shaped user group management, matching the administrative management structure of the terminal users Supports user-defined attributes for user information addition Supports role management. The administrator can perform user role-based authorization management. Supports binding between one account and multiple roles. Supports authorization management based on the user/user group/role, access location, terminal type, terminal group, access time, and access mode.
	Identification	Supports terminal type identification through SNMP, User-Agent, DHCP, and MAC OUI to identify terminal types, operating systems, and vendors of wireless terminals.
	Portal Services	
	Accounts handling	Should allow system administrators and guest administrators to manually create guest accounts one by one or in a batch. Allows guests to apply for temporary accounts on the self-service Portal page. The account application is approved by the administrator or does not need to be approved Registered Accounts and Guest Accounts Based on the user account network access and control in the wired, wireless and VPN network scenario, the solution don't need to bind account with IP address.
	Customization	Should supports HTML-based advanced customization, including image carousel, image dragging, attachment downloading, and page previewing. Should allow users to customize content of each page, including the displayed fields, user notice, logo, and advertisement pictures/links. Should allow administrators to customize the web portal content on the authentication success page, including texts, images, and style editing. Web Portals are used to release business consulting, product details, and advertisements. Pushes different pages to PCs and mobile phones to ensure that the content can be elegantly displayed. Should provide more than 8 sets of default templates and allows users to customize templates
	Localization & Branding	Branding and Co-Branding Supports to push portal pages based on the different zone. Supports to push different Portal authentication and registration

		pages based on the time ranges, terminal IP address range, access AP, terminal type, and SSID.
	Integration Services	
	SMS	Guest user account creation PIN code be shared through both SMS and Email.
	Email	welcome email with customized text and branding be sent to users after their first login.
	Security Features	
	Traffic segmentation	Defines network traffic based on source/destination IP address segments and source/destination user groups so that flows are imported to the specified device for security monitoring.
	Policies Definition	Allows administrators to set password generation policies and validity periods for guest accounts, and export and print guest accounts. Allows guest administrators to use local accounts, accounts synchronized from the AD\LDAP server, or non-synchronized accounts. Allows administrators to configure authentication and authorization policies based on the user group, account, role, access device group, terminal IP address range, or time range Provides management for multiple authorization policies based on the priority. The authorization policy with the highest priority is first matched.
	Monitoring & Reporting	
	Monitoring	Records authentication and authorization logs, including the username, account, user group, terminal IP address, access device IP address, TACACS server IP address, access time, authentication result, authentication rule, authorization rule, authorization result, command name, command parameter, and command set
	Reporting	<u>Pre-defined standard reports with the provision of customization and generation/ creation of new reports in the system. Statistical reports which can be generated and emailed/ electronically communicated to the relevant management professionals.</u>
Installation, Configuration & Commissioning	Complete installation of all equipment/ components pertaining to Campus WiFi Network (Wireless) as per manufacturer's guidelines, and reinstate the site in all civil aspects. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.	

COMPONENT #3: DATA CENTER

Design Requirements	Data Center Requirements	
	Design Space	14 ft x 22 ft
	No. of IT Racks	Four (04) initially expandable up to another Four (04) in future
	IT Power Density	34kW per Rack
	Total IT Power Load	20kVA
	Power Redundancy	N+1
	Cooling Type	Precision In-rack cooling
	Cooling Redundancy	N+1
	DCIM	All critical Power and Cooling components
	Surge Protection Level	Class II/C, In 20kA, I _{max} 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 border="1"> <tr> <td>Type</td> <td>Modular & 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>Installation mode</td> <td>Installed on a concrete or raised floor</td> </tr> <tr> <td>Static load</td> <td>1500 kg</td> </tr> <tr> <td>Dynamic load</td> <td>1000 kg</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	Installation mode	Installed on a concrete or raised floor	Static load	1500 kg	Dynamic load	1000 kg	Protection level	IP20
Type	Modular & Containment/ Pod															
Color	Black															
Material	High-intensity class A carbon cold rolled steel sheet and zinc-coated steel sheet															
Installation mode	Installed on a concrete or raised floor															
Static load	1500 kg															
Dynamic load	1000 kg															
Protection level	IP20															
Deployment	Single <u>or Dual</u> -row with minimum occupancy of equipment room space															
Flooring for Installation	Concrete Floor or ESD Floor With or without Raised Floor															
Environmental AdaptabilityAdaptability																
Temperature Range	-10°C to +55°C															
Humidity Range	5% to 95%															
Altitude Range	4,000 mft 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 RoHS report obtained Battery cabinet: CE, RoHS, REACH, certificates obtained Integrated power distribution cabinet: CE, RoHS, REACH, certificates obtained															

Uninterrupted Power Backup System	System Parameters	
	Rate Capacity	20KVA <u>initially, upgradable up to 40KVA</u> or more
	Configuration	N+1
	Backup Time	15 min or more
	Installation Mode	<u>Modular or</u> Rack-mountable
	Rack Space Occupancy	3U or less
	Input Voltage	150–485 V AC,40-70Hz
	Communication Port	RS485
	Efficiency	
	In Online Mode	95% or more
	Overload Capacity	At least 125%
	Power Distribution Box Specifications	
	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 or Outside the module
	Electrical Performance	
	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
	In-row Precision Air Cooling	Technical Specifications
Indoor Fan Type		EC Fan
Total cooling capacity		10 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
Installation Mode		
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
Energy Efficiency		
Compressor Type		DC Invertor
Cooling Capacity on demand		30%–100% stepless speed adjustment
No. of DC Fans in Indoor Unit		Six (06) or more
Air Supply Mode		Horizontal
Load Management		Variable-frequency temperature controller
Humidifier Type		Wet film
Reliability		
Air Conditioner Type		DC variable-frequency
Humidity Control		Below 80% with non-condensation at low loads

	Compatibility	
	Rack-mounting size	11U or less
	Refrigerants Pipes Route	From Top or Bottom
	Additional Functions	Both heating and humidifying
Monitoring & Management Solution	System Parameters	
	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
	Monitoring Interfaces	
	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
	Management Features	
	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
	Installation, Configuration & Commissioning	Complete installation of all equipment/ components pertaining to Data Center setup as per manufacturer's guidelines, and reinstate the site in all civil aspects. Configuration of all equipment/ components for an optimum and efficient output of the facility, meeting the objectives and requirements is a must. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.

COMPONENT #4: CAMPUS SECURITY (IP SURVEILLANCE)

Bullet Cameras

System Parameters	
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
Protocols	
Video	H.265, H.264
Network	IPv4/ IPv6, DNS, ICMP, ARP, RTCP, FTP, RTP, HTTPS, SSL, NTP, SNP, QOS
Interfaces	
Network	RJ45 FE 10/100Mbps
Power	PoE (IEEE 802.3af)
Basic Features	
Image Quality	HLC, Defog, DNR
Watermarking	Digital
Identification	Face detection, Abandoned Object, Object Removal, Intrusion detection, Trip Wire, and Loitering detection
Power Supply	DC12V±25% <u>or more</u>
Security Features	
Encryption	AES256 <u>or equivalent</u>
Authentication	Username and Password 802.1x access authentication

PTZ Dome Cameras	System Parameters		
	Lens	1/2.7" 5.0 MP	
	Frame Rate	30FPS	
	Resolution	5MP (2560(H) * 1920(V))	
	WDR	120 dB	
	IR range	150 m	
	Focal Length	5 – 165 mm	
	Zoom	Built-in lens 33x Optical and 16x Digital	
	Aperture	F1.6 and Piris	
	Color	0.005 lux (F1.2)	
	B/W	0.0005 lux (F1.2)	
	Protocols		
	Video	H.265, H.264	
	Audio	G.711a, G.711u, and OPUS audio coding standards 1-channel audio input and 1-channel audio output	
	Network	IPv4/ IPv6, DNS, ICMP, ARP, RTCP, FTP, RTP, HTTPS, SSL, NTP, SNP, QOS	
	Interfaces		
	Network	RJ45 FE 10/100Mbps	
	Power	PoE/ PoE+ (IEEE 802.3af)	
	Basic Features		
	Image Quality	HLC, BLC, Defog, Day/ Night focus compensation	
	Watermarking	Digital	
	Rotation	Pan: 0° to 360°; Tilt: -15° to +88	
	Scan	Horizontal scan, Pattern scan, Preset position, Tour track, Random scan, Vertical scan, Frame scan, and Panoramic scan	
	Identification	Face detection, Abandoned Object, Object Removal, Intrusion detection, Trip Wire, and Loitering detection	
	PA System Ports	2-input and 1-output	
	Power Supply	DC12V±25% or more	
	Security Features		
	Encryption	AES256 or equivalent	
	Authentication	Username and Password 802.1x access authentication	
	Indoor Dome Cameras	System Parameters	
		Lens	1/2.7" 5.0 MP
Frame Rate		30FPS	
Resolution		5MP (2560(H) * 1920(V))	
WDR		120 dB	
IR range		150 30 m	
Focal Length		6 mm	
Zoom		Built-in lens 33x Optical and 16x Digital	
Aperture		F1.6 and IRIS	
Protocols			
Video		H.265, H.264	
Network		IPv4/ IPv6, DNS, ICMP, ARP, RTCP, FTP, RTP, HTTPS, SSL, NTP, SNP, QOS	
Interfaces			
Network		RJ45 FE 10/100Mbps	
Power		PoE (IEEE 802.3af)	

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COMPONENT #5: VIRTUAL DESKTOP INTERFACE (VDI)

Thin Clients	Terminal Parameters	
	Processor	Quad-core ARM Cortex/ <u>Intel</u> processors 1.8 GHz or higher
	Embedded OS	Linux/ <u>Windows</u>
	Memory	1 GB DDR3 DIMMs or more
	Storage	4GB or more
	Interfaces	
	Network Interface	1000 Mbps adaptive electrical interface
	Ports	4 x USB2.0 or higher, DVI-I and VGA display ports, dual-screen extended display
	Basic Features	
	Resolution	1920 x 1080@60Hz or higher
	O&M Support	Centralized management
Solution Requirements	Virtual System Parameters	
	Processor per user	2vCPU
	Memory per user	4 GB
	Storage per user	50 GB
	OS Space	50 GB
	OS	Windows 10
	VDI Licenses	300 for the VDI TC Users 100 for current Desktop users
VDI Management Requirements	Compute Node Parameters	
	Processor	Latest Xeon 16 Cores Dual Processor
	Memory	384 GB RAM per Server/ Node
	Network	Redundant 10G, Optical Ports with SFPs
	OS	OS Image Drive
	Storage Requirements	
	Controller Type	Dual Controllers for Unified Storage
	Cache per dual Controllers	128GB or more
	Storage Type	50% SAS and 50% NL – SAS usable after RAID 5,6 Respectively with at least 1 hot spare disk
	Software	Storage software features like thin provisioning, ultra-path, device manger should be included
	Network Requirements	
	Switches	2 x Network switches for connecting the compute and storage should be based on 10G optical. With all optical Cables and accessories including SFPs.
	Functional Requirements	
	Dedicated desktops, static pool-based desktops, and dynamic pool-based desktops. For dynamic pool-based desktops, a user still be able to log in to the previous virtual desktop even though the virtual desktop disconnected for a while.	
	Users be able to access virtual desktops using TCs (including Windows, Linux, and Android TCs), PCs (including Windows, Linux, and Chrome PCs), as well as Mac OS, iOS, or Android mobile devices	
	Users use existing PCs as clients and shields the Start menu of the local PC and local resources. The local PCs do not need to be added to an AD domain.	
	CPU and memory be guaranteed as well as real-time monitoring are provided for the VIP desktops. The administrator should receive an email when the desktop is faulty.	
	Users can log in to and use the virtual desktop upon turning on the TC and have PC-like experience.	
	Virtual desktop template creation tool to provide wizard-based self-service creation,	

	<p>simplifying template creation.</p> <p>Rapid provisioning of virtual desktops. VMs are created and provisioned at a time without administrator intervention, while providing the snapshots.</p> <p>Self-service upgrade of desktop protocol clients using TCs. The administrator does not need to upgrade the clients one by one in the background. Snapshots must be provided.</p> <p>Users can safely or forcibly reboot virtual desktops and recover desktops if faults occur, reducing the maintenance workload of the administrator. Snapshots must be provided.</p> <p>Desktop watermark function, which allows users to configure a watermark on a fixed or random position, the number of watermarks, and the watermark color RGB.</p> <p>Role separation management. The operation rights of the roles that correspond to the accounts in the management system are separated. Snapshots must be provided.</p> <p>Self-service backup and restoration of VMs, allows the administrator to back up and restore VMs in a centralized manner, and supports permanent incremental backup and file-level restoration.</p> <p>Prevent desktop agent software from being deleted or killed by mistake. If the desktop agent software files are incorrectly deleted or the desktop agent software processes are mistakenly killed, files and processes can be automatically restored.</p> <p>Note: The Total Compute capacity should be defined and calculated as per above user requirement and ensure about the performance. To ensure system compatibility, the virtualization platform and desktop cloud platform must have the same brand.</p>
Installation, Configuration & Commissioning	<p>Complete installation of all equipment/ components pertaining to VDIs setup as per manufacturer's guidelines, and reinstate the site in all civil aspects. Configuration of all equipment/ components for an optimum and efficient output of the facility meeting the objectives and requirements. Testing and commissioning of the complete setup as per the requirements and satisfaction of PAF-IAST.</p>

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.

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 five (05) years and “End of Support” in next eight (08) years from the date of delivery. To this effect, Bidder(s) shall supply a Certificate from the Principal(s) for all the equipment.
- Bidder(s) shall submit their proposed Solution Design duly vetted/ endorsed by the Principal(s) through a letter stating so.
- There shall be no deviation from specification and country of make 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 to the satisfaction of PAF- IAST 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).

COMPONENT(s)			
Level	5	2 & 4	1 & 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; Documented guidelines for generating reports using software and/ or systems’ interface	
Advanced			Provide trainings to Operators for troubleshooting and smooth operations using system manuals

- In addition, the bidder supplying the item/ equipment(s) will acquire from the Principal(s) the status of “**Certified Training Center**” as part of this procurement for PAF-IAST, Mang – Haripur. A separate agreement/ MoU shall be signed with the Principal(s) for the purpose.

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 from the date of delivery, installation and commissioning of the said goods/ stores/ articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/ or approved the said goods/ stores/ article, if during the aforesaid period, the said goods/ stores/ articles, be discovered not to conform to the description and quality aforesaid or have

determined (and the decision of the Procurement Committee in that context will be final and conclusive), the PAF – IAST will be entitled to reject the said goods/ stores/ articles or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods/ articles/ stores will be at the supplier's risk and all the provisions relating to rejection of goods etc. shall apply.

- The Supplier shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by Procurement Committee, otherwise the supplier shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Procurement Committee in that behalf under the contract or otherwise.
- 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.
- The Supplier may be asked to depute at least One (01) Resident Engineer each for the identified Components for day-to-day operations and assistance to PAF-IAST.

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:

Have you duly completed all the Returnable Bidding Forms?	
✦ 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"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<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-ITNW-ITB-104-20		

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)

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	PAF: IAST-ITNW-ITB-104-20		

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]

Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
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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-ITNW-ITB-104-20		

Legal name of Bidder	[Complete]
Legal address & Branch Offices	[Complete]
SECP Registration No.	[Complete]
National Tax Number (NTN)	[Complete]
Sales Tax Number (STRN)	[Complete]
Year of registration	[Complete]
Location of Office(s)	[Complete]
Principal(s) Office Address in Pakistan	
Warehouse Address in Pakistan	
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a PAF – IAST registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert PAF- IAST vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
No. of Technical Staff	[Complete]
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	[Complete]
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):	[Complete]

<p>Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i></p>	<p>[Complete]</p>
<p>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</p>	<p>[Complete]</p>
<p>Contact person that PAF: IAST may contact for requests for clarifications during Bid evaluation (Only Lead Bidder)</p>	<p>Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]</p>
<p>Please attach the following documents:</p>	<ol style="list-style-type: none"> 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. 2. Proposed timetable for delivery, installation and commissioning plan for the required and quoted items to PAF – IAST after the award of Contract. 3. Certificate of Registration of the business. 4. Certificate of Registration with FBR 5. Principals’ Authorization Letter in favor of Bidder to participate in this Tender. 6. Certified Partner Status evidence 6.7. <u>Certificate from Principal(s) to the affect that supplied equipment/ product shall not reach to “End of Sale/ Life” earlier than Five (05) years and “End of Support” earlier than Eight (08) years from the date of delivery.</u> 8. A proofing document confirming the offered warranty for at least Five (05) years, supported by the manufacturers/ principals’ certificates. 7.9. <u>Certificate or Consent Letter from Principal(s) on account of giving the status of “Principal’s Certified Training Center” to PAF-IAST, and willingness of Principal(s) to sign separate agreement/ MoU with PAF-IAST in this context.</u> 8.10. A proofing document confirming supply of same or similar items pertaining to each Components, of this magnitude to various clients/ customers in Pakistan. 9.11. Proven records of no less than the required Projects of similar nature/ value/ complexity in which delivery and services were extended. 10.12. Full detailed description of the specifications of the proposed items in addition to catalogues clearly showing the proposed specifications responding to the requirements. 11.13. Supporting photos of the proposed items. 12.14. Quality certifications: ISO 9001:2015 13.15. Latest Audited Financial Statements (Income Statement and Balance Sheet) including Auditor’s Report for the past (3 years).

Note: To be filled in by each partner in case Bid is submitted as a JV/ Consortium/ Association

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-ITNW-ITB-104-20		

If JV/ Consortium/ Association, to be completed by each partner.

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 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

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

Financial information (in PKR equivalent)	Historic information for the last 3 years		
	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 public accountant;
- Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Tax Paymenter Standing

Annual Tax Paid by the Bidder

Annual Turnover for the last 3 years	Year	PKR
	Year	PKR
	Year	PKR

Annual Tax Paid by the Principal in Pakistan (if applicable)

Annual Turnover for the last 3 years	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-ITNW-ITB-104-20		

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	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> [Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i> ✦ Name of institution: [Insert] ✦ Date of certification: [Insert]
Employment Record/ Experience	<i>[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.]</i> [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, 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.

- 3.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 3.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 3.3 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 3.4 Details on post-commissioning trainings on-site hands-on training for [LOTComponent # 1, 2, 3, 4 & 5](#).

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.

- 5.1 A detailed description of how the Bidder will provide the Warranty claims to the users, keeping in mind the span and complexity of the project in context of local conditions and project environment.
- 5.2 Explain whether any services or work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 5.3 Details how the post-delivery/ deployment Support Services will be provided to the users keeping in consideration the criticality of IT systems, and dependency of university administration and operations on such systems.

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-ITNW-ITB-104-20		

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 <i>(based on the Technical Specifications provided in Section 5a & Section 5b)</i>		Your response Compliance with specifications		
		Comply (Yes/ No) <i>(If No, indicate discrepancies)</i>	Quoted Specifications	Type/ Model no. & Country of Origin
Required Items		Offered Items		
COMPONENT #1: CAMPUS CORE NETWORK (Wired)				
1.	Router		(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	Firewall			
3.	Core Switch			
4.	Applications Switch			
5.	Aggregation Switch 24-Port Layer 3			
6.	Aggregation Switch 24-Port 10GE Layer 3			
6-7.	Access Switch 24-Port Layer 3			
7-8.	Access Switch 48-Port Layer 3			
8-9.	Industrial Rugged Switch 8-Port			
9-10.	Installation, Configuration & Commissioning			
SUB-COMPONENT: PASSIVE WORK				
1.	Optical Fiber Infrastructure		(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 & VDIs)			
3.	Data Center Networking			
4.	IP Surveillance related Network			
5.	Civil Works			
6.	Installation, Configuration & Commissioning			
COMPONENT #2: CAMPUS WiFi NETWORK (WiFi)				
1.	Access Point (Indoor)		(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications)	
2.	Access Point (Indoor) Multi-Gigabit			
3.	Access Point (Outdoor)			
4.	Unified Network Management			
5.	Network Access Controller Solution			

6.	Installation, Configuration & Commissioning		provided in Section – 5)	
COMPONENT #3: DATA CENTER				
1.	Design Requirements		(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	Uninterrupted Power Backup System			
3.	In-row Precision Air Cooling System			
4.	Monitoring & Management Solution			
5.	Installation, Configuration & Commissioning			
COMPONENT #4: CAMPUS SECURITY (IP SURVEILLANCE)				
1.	Bullet Cameras		(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	PTZ Dome Cameras			
3.	Indoor Dome Cameras			
4.	Command & Control System/ Solution			
5.	Installation, Configuration & Commissioning			
COMPONENT #5: VIRTUAL DESKTOP INTERFACE (VDIs)				
1.	Thin Clients		(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)	
2.	Solution Requirements			
3.	VDI Management Requirements			
4.	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-ITNW-ITB-104-20		

[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.] $d=a*[b+c]$
COMPONENT #1: CAMPUS CORE NETWORK (Wired)					
1.	Router	2			
2.	Firewall	2			
3.	Core Switch	2			
4.	Applications Switch	2			
5.	Aggregation Switch 24-Port <u>SFP+</u> Layer 3	4			
6.	<u>Aggregation Switch 24-Port 10GE Layer 3</u>	8			
6-7.	Access Switch 24-Port Layer 3	14			
7-8.	Access Switch 48-Port Layer 3	14			
8-9.	Industrial Rugged Switch 8-Port	40			
9-10.	8-Port 40GE Interface Card	1			
10-11.	48-Port 10GE Interface Card	1			
11-12.	Fiber Transceivers or DAC: 40G QSFP+	40			
12-13.	Fiber Transceivers or DAC: 10G SFP+	16			
13-14.	Fiber Transceivers Type: 10G SFP+ Multi-mode	68			
14-15.	Fiber Transceivers Type: 10G SFP+ Single-mode	68			
15-16.	Fiber Transceivers Type: 1G SFP+ Multi-mode	68			
16-17.	Fiber Transceivers Type: 1G SFP+ Single-mode	68			
SUB-COMPONENT: PASSIVE WORK					
1.	Optical Fiber Infrastructure				
	48 Core Fiber Cable (m)	5,000			
	24 Core Fiber Cable (m)	3,000			
	12 Core Fiber Cable (m)	2,000			
	Fiber Patch Cord (3 m)	15			
	12 Port ODF (Outdoor)	40			
	24 Port ODF (Rack Mount)	15			
	Media Converter (Fiber to Ethernet)	80			
	Patch Cord (1 m) Cat 6A	80			
	Rack 4U (Outdoor & Waterproof)	40			
	<u>Fiber Cable Laying (civil works) as per Industry standard</u>	1			
2.	LAN Networking (Wired, Wireless & VDIs)				
	F/UTP CAT 6A (500 m)	135			
	Fiber Patch Cord (30 m)	50			
	Patch Cord (1 m) Cat 6A	1,200			
	Patch Cord (3 m) Cat 6A	1,200			
	Patch Cord (10 m) Cat 6A	500			
	9U Network Rack	25			

	Patch Panel 24 Port (3M) Cat 6A	50		
	Cable Manager Cat 6A	50		
	RJ-45 Connector Cat 6A	250		
	Face Plate with Box Cat 6A	1,200		
	I/O Cat 6A	1,200		
	PVC Duct 16 x 25 (ft.)	26,000		
	Cable Tray 4" x 4" (ft.)	3,900		
	Electrical Point for Network rack	25		
3.	Data Center Networking			
	24 Core	30		
	12 Core	30		
	12 Port ODF (Outdoor)	50		
	24 Port ODF (Rack Mount)	50		
	Patch Cord (1 m) CAT 6A	85		
	Patch Cord (3 m) CAT 6A	85		
	Rack 4U (Outdoor & Waterproof)	1		
	Cable Manager	120		
	Earth pit for UPS and SRG	2		
	Network (PoE) Service Switch	2		
	Main electrical Panel for distribution of UPS, Cooling and others utilities	1		
	ATS Panel 100 Kva	1		
	Biometric with Time and Attendance control system	2		
	Supply & installation of Emergency Light c/w battery pack and accessories.	6		
	Fire Detection & Suppression System	1		
	Novac 1230 with panel, sound alarm, Smoke detector	1		
4.	IP Surveillance related Network			
	CAT 6A (500 m)	16		
	Cable Manager	16		
	Pole for Security Camera with light	200		
	Pole for PTZ Camera	16		
	Security LED Light 30Watt	400		
	Breaker for Light	400		
	Light Sensor	400		
	Waterproof box 4"x4"	200		
	Digging Soft/Hard	16,000		
	Concrete foundation for Poles	200		
	Electrical box 8x10 water roof	400		
	Electrical cable 10mmx3c Armored for Security camera (m)	12,000		
	55" Smart UHD LED	4		
	Network Keyboard,7", 256 DVR/ Network Cameras/ DOME (DS-1100KI)	1		
5.	Civil Works			
	Fire Rated Door and associated work	1		
	Piping for Cooling and associated work	1		
COMPONENT #2: CAMPUS WiFi NETWORK (WiFi)				
1.	Access Point (Indoor)	163		
2.	Access Point (Indoor) Multi-Gigabit	4		
3.	Access Point (Outdoor)	8		
4.	Unified Network Management	1		
5.	Network Access Controller Solution	1		
COMPONENT #3: DATA CENTER				
1.	Design Requirements	1		
2.	Uninterrupted Power Backup System	1		

3.	In-row Precision Air Cooling System	1			
4.	Monitoring & Management Solution	1			
COMPONENT #4: CAMPUS SECURITY (IP SURVEILLANCE)					
1.	Bullet Cameras	135			
2.	PTZ Dome Cameras	11			
3.	Indoor Dome Cameras	139			
4.	Command & Control System/ Solution				
	Core Surveillance Server	1			
	Decoder for Display	135			
	LED Display 65"	4			
COMPONENT #5: VIRTUAL DESKTOP INTERFACE (VDIs)					
1.	Thin Clients	300			
2.	Solution Requirements	1			
3.	VDI Management Requirements	1			

Extended Warranty Price (at discretion of PAF-IAST)

Annual Warranty & Support Services beyond Standard Warranty of the Quoted Items		2 nd Year (in PKR)	3 rd Year (in PKR)	4 th Year (in PKR)	5 th Year (in PKR)
COMPONENT #1: CAMPUS CORE NETWORK (Wired)					
1.	Router				
2.	Firewall				
3.	Core Switch				
4.	Applications Switch				
5.	Aggregation Switch 24-Port Layer 3				
6.	Access Switch 24-Port Layer 3				
7.	Access Switch 48-Port Layer 3				
8.	Industrial Rugged Switch 8-Port				
COMPONENT #2: CAMPUS WiFi NETWORK (WiFi)					
1.	Access Point (Indoor)				
2.	Access Point (Indoor) Multi-Gigabit				
3.	Access Point (Outdoor)				
4.	Unified Network Management				
5.	Network Access Controller Solution				
COMPONENT #3: DATA CENTER					
1.	Design Requirements				
2.	Uninterrupted Power Backup System				
3.	In-row Precision Air Cooling System				
4.	Monitoring & Management Solution				
COMPONENT #4: CAMPUS SECURITY (IP SURVEILLANCE)					
1.	Bullet Cameras				
2.	PTZ Dome Cameras				
3.	Indoor Dome Cameras				
4.	Command & Control System/ Solution				
5.	Core Surveillance Server				
6.	Decoder for Display				
7.	LED Display 65"				
COMPONENT #5: VIRTUAL DESKTOP INTERFACE (VDIs)					
1.	Thin Clients				
2.	Solution Requirements				
3.	VDI Management Requirements				

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>