PUBLIC SERVICE COMMISSION GOVERNMENT OF KHYBER PAKHTUNKHWA



"INSTALLATION OF OPTICAL FIBER NETWORKING CBT AND UPGRADATION OF EXISTING IT SYSTEM OF KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION"

BID SOLICITATION DOCUMENT

For

PROCUREMENT OF IT & OTHER EQUIPMENT

Tender Opening	16/09/2022
Venue	KP Public Service Commission 2 Fort Road Peshawar Cantt.

CONTENTS

1)	INTRODUCTION	3
2)	TYPE OF COMPETITIVE BIDDING	4
3)	INSTRUCTIONSTO BIDDERS	4
4)	GENERALTERMS AND CONDITIONS	5
	GENERAL AND SPECIAL CONDITIONS OF THE CONTRACT	
6)	TECHNICAL AND FINANCIAL PROPOSAL	10
DE	TAIL SPECIFICATION OF HARDWARE AND OTHER EQUIPMENT	14
BIE	D FORM	32
PΕ	RFORMANCE SECURITY FORM	33
SΔ	MPI F CONTRACT AGREEMENT	34

INTRODUCTION

The Khyber Pakhtunkhwa Public Service Commission has received an allocation from the Public Fund in Pak rupees / towards the cost of "INSTALLATION OF OPTICAL FIBER NETWORKING CBT AND UPGRADATION OF EXISTING IT SYSTEM OF KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION". It is intended that part of the proceeds of this allocated fund will be applied to eligible payments under the contract for procurement of IT and other equipment's.

INVITATION FOR BIDDING

Khyber Pakhtunkhwa Public Service Commission has initiated the project titled "Installation of Optical Fiber Networking CBT and upgradation of existing IT system of Khyber Pakhtunkhwa Public Service Commission ADP No. 546-210254". The KP PSC invites sealed Technical & Financial bids on single stage-two Envelop System in accordance with the Khyber Pakhtunkhwa Procurement Rules 2014, from the eligible/registered bidders for the following Lots.

Lot # 1:	 Layer-3 Manageable Core Switch 48 ports (Rack Mounted)
	 Giga Bit Access Switches 24 Ports (with data Cabinets for switches)
	Wireless Giga Bit Access Point
	Physical Access Point Controller
	 Physical Firewall with 3-Years License
	Networking tool kit
	• Fiber Optic Deployment, Installation, commissioning including ODF, Pigtail, 24/48 Fiber Cabling, Splicing, 250 Nodes of whole KP PSC, Ducting, etc Complete Network of Thin Clients (100 Nodes), Access Points, CBT Server and
	construction/Availability of furniture (Tables, Chairs)
Lot # 2:	 High End Server for KP PSC Applications
	 Backup Servers for Disaster Recovery
	 Windows Server 2020 for Server - 2 Core License Pack (x24)
	CBT Server
	• 100 Thin Clients/Terminals
Lot # 3:	• Laptops
	 Computer having Specification of Core i7 processor with LED 20" (for IT Staff/Department)
	Video Conferencing System
	 DVD-W Rom Drive for DVD Writing and Portable HDD (2TB) for Backup
	Wi-Fi USB Lan Adapter
	Online UPS 10 KVA
Lot #4:	Heavy Duty Printers
	Heavy duty scanners

Terms & condition:

- i. Technical and Financial bids duly completed, signed, stamped, sealed and in complete conformity with specification mentioned in Bid Solicitation documents must be delivered to the undersigned office on or before 16/09/2022 at 11:00 AM. Technical proposals will be opened on 16/09/2022 at 11:15 AM.
- ii. Bid must be accompanied by a bid security 2% of the total cost of financial proposal in the form of Call deposit receipt in the name of Project Director, Khyber Pakhtunkhwa Public Service Commission 2-Fort road Peshawar Cantt.
- iii. Bid solicitation documents containing detailed description, specifications and quantities, may be obtained from the office of the undersigned between 09:00 Am-5:00 PM on any working day (Monday to Friday) from the date of publication of this advertisement in the public newspaper till 10:00 AM on 16 September 2022 for submission of bids @ Rs.1000/fee.
- iv. Bidders should be registered firm of Pakistan with Income/Sales Tax Registration certificate/NTN) and other related documents must accompany the bids. Bidders should be on the active taxpayer list of FBR.

- v. Bidder should provide affidavit that their firm has not been blacklisted by any of the provincial/Federal Government or organization in Pakistan.
- vi. Competent Authority reserves the right to reject any or all the bids as per provisions contained in Rule 47 of KPPRA Rules 2014. Incomplete bids will be rejected straight away.

1) TYPE OF COMPETITIVE BIDDING

As per KPPRA Rules 2014, **Single Stage-Two Envelope** Procedure shall be followed. This is as follows:

- i. The bid shall comprise of a single package containing two separate Envelopes. Each Envelope shall contain separately the **Technical Proposal** and the **Financial Proposal**;
- ii. Initially, only the Envelope marked "TECHNICAL PROPOSAL" shall be opened.
- iii. The Envelope marked as "FINANCIAL PROPOSAL" shall be retained in the custody of the purchase committee without being opened;
- iv. The purchase committee shall evaluate the Technical Proposal in a manner prescribed in Section evaluation of this document, without reference to the price and reject any proposal which does not conform to the specified requirements
- v. The Financial Proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance
- vi. After the evaluation and approval of the Technical Proposal the purchase committee, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bidders only. The Financial Proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders; and the bid found to be the technically and financially qualified as per evaluation criteria shall be accepted and considered as lowest bid. The subject purchase shall be made under Merit Point System Rule 25.4 of SBD Notified by KPPRA vide No.KPPRA/M&E/SBDs/1-1/2015 dated 03-05-2016.

In accordance with these rules, interested companies (hereinafter referred to as "Contractors") applying for bids should submit two separate bids/Envelopes for Financial Proposal and Technical Proposal.

Bidding Details

All the bids must:

- Be accompanied by a call deposit receipt (CDR)/Bank Draft of 2% of total package value in favor of **Project Director**, **Public Service Commission Government of Khyber Pakhtunkhwa**.
- Be submitted along with the CDR, Tender Forms, Affidavits, etc.,
- Be delivered to Project Director, Public Service Commission, Government of Khyber Pakhtunkhwa.
- Technical bids will be publicly opened in the office of the Project Director, situated at 2-Fort Road, Peshawar Cant on 16/09/2022 at 11:15 AM.
- The Purchaser will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
- The Purchaser reserves the right to reject all bids or proposals at any time prior to the acceptance of a bid or proposal under KPPRA Rules 2014.
- Failure to supply services within the specified time period will invoke penalty as specified in this document. In addition to that, Call Deposit (CDR) amount will be forfeited and the Company will not be allowed to participate in future tenders as well.

2) INSTRUCTIONS TO BIDDERS

- i. The bidder/proponent must submit the proposals in sealed Envelopes as per specified procurement method (Single Stage Two Envelope System)
- ii. The bid shall comprise of a single package containing two separate Envelopes. Each Envelope shall contain separately **Technical Proposal** and **Financial Proposal**; The Envelopes shall be clearly marked as "**TECHNICAL PROPOSAL**" and "**FINANCIAL PROPOSAL**" in bold and legible letters to avoid confusion

- iii. The Envelopes should be in the name address and contact details of the head of the procuring entity i.e. Project Director, 2-Fort Road Khyber Pakhtunkhwa Public Service Commission.
- iv. The Technical proposal shall contain the copy of the registration with one of the mandated authorities of Government of Pakistan along with the NTN Certificate and sales tax registration certificate. Registration with Khyber Pakhtunkhwa Revenue Authority is also mandatory and must be submitted with Technical Proposal.
- v. The rates offered should be inclusive of all applicable taxes.
- vi. The technical proposal shall have complete work plan and delivery schedule without which no weight will be given in accordance with the bid evaluation criteria.
- vii. The successful bidder must offer comprehensive warranty, mentioned against each items in the financial proposal.
- viii. The quoted prices should remain valid for 3 Months after issuance of Supply Order.
- ix. The Total cost of the contract, and the per unit price of the items including all the applicable taxes shall be given in the financial proposal.
- x. The bid security provided by the bidders in the form of security deposit will be verified from the bank concerned.
- xi. Collusion between the firms is strictly prohibited. Any firm/group of firms found involved in creating a cartel or any other collusion arrangements against the interest of the project/government, will be blacklisted and debarred.
- xii. The proposal should be in accordance with enclosed specifications.
- xiii. Response time shall be strictly observed.
- xiv. The bidder shall submit an affidavit on stamp paper that the firm is not black listed.
- xv. The bidder should submit a certificate with Technical Proposals that 2% bid Security has been attached with Financial Proposals in the form of Call Deposit Receipt (CDR) / Bank Draft.
- xvi. All the pages of the bid documents must be signed and stamped by the bidders.
- xvii. The procurement entity may offer for re-bidding in case the proposal does not satisfy its requirements.
- xviii. The successful bidder will provide a performance bank guarantee at 10 % of the total contract value. The bank guarantee should be made from a scheduled bank.
- xix. The bidder will require to provide a sample/catalogue of items for which it has quoted/submitted the bid and after evaluation, the technically qualified bidder shall have required to submit the requisite samples for examination before issuance of letter of acceptance and subsequent award of the contract. The sample will be retained to the bidder once the inspection of the supplied items is done and items are accepted by the procuring entity.
- xx. The bidders must have experience in the relevant field and attested documents evidence of successful supply of these items to Government Organizations.
- xxi. Contract will be signed with the successful bidders and its terms and conditions will govern the execution of the contract.
- xxii. Arbitration as per law will be made in case of disagreement erupted out of contract execution, which cannot be settled, between the two parties (Procuring Entity and supplier/vendor/bidder).

3) GENERAL TERMS AND CONDITIONS

- a. The above details shall be submitted in a sealed Envelope.
- b. The supplier (s) must be registered with the sales tax authorities.
- c. The supplier(s) must be registered with Khyber Pakhtunkhwa Revenue Authority (KPRA).
- d. Warranty of Goods shall be provided along with quotation.
- e. The quote (s) must remain valid for the period of three (03) months.
- f. All suppliers shall mention all applicable taxes in their quotes. In case any supplier has not done so, the procuring entity while comparing the offers will add the applicable taxes to the total quoted amount for each item.
- g. The request for quotation is non-transferable.
- h. Quotation must be submitted on or before the given time and date to the officer-designated for the purpose. No late quotation for any reason whatsoever will be considered.
- i. The quote (s) must be accompanied with bid security valuing 2% of the total quoted price.

- j. NTN certificate shall be enclosed in the technical proposal.
- k. The quotation must carry the authorized signatures of the representative of the supplier.
- 1. Procuring entity may increase or decrease the quantity of items as per requirement.
- m. Each & Every page of the bid document must be signed by the concerned bidder / bidding firm.
- n. Purchase committee has the right to accept or reject any or all offers, reasons for which will be communicated to the bidders if requested as per rule: 47(1) of KPPRA Rules, 2014.

Deputy Director (IT), Khyber Pakhtunkhwa Public Service Commission, 2-Fort Road Peshawar Cantt 091-9222469

4) GENERAL AND SPECIAL CONDITIONS OF THE CONTRACT

- **A. LANGUAGE**: All communication and documentations related to procurements shall be in English.
- **B. PLACE AND TIME OF DELIVERY:** The successful supplier shall be required to deliver and install Hardware and other equipment to Khyber Pakhtunkhwa Public Service Commission within forty-five(45) days after issuance of supply order without any damage otherwise call deposit shall be forfeited and penalty shall be imposed as per procurement Rules.

C. INSPECTION OF GOODS ON DELIVERY (WHOLE APPLICABLE)

The goods shall be inspected by the technical/Inspection Committee of the procuring entity for quality/quantity etc at Khyber Pakhtunkhwa Public Service Commission.

Inspection of goods shall be conducted without prejudice to the buyer's right to lodge quantity and quality claims. In case the goods are not found in conformity with the contracted quality/specifications, procuring entity shall have the right to lodge claims within 30 days from the date of inspection of the goods.

In case of dispute by the supplier, joint re-inspection of the supplied material shall be carried out, at the cost of the supplier, in presence his or his authorized representative either at a laboratory designated by the procuring entity or by a neutral independent entity as jointly agreed.

D. PACKAGING

Hardware and allied accessories should be packed suitably in appropriate boxes as per principal; in such a manner that the goods are not lost or damaged in handling/transportation and the packing should be suitable enough to reach at the store of procuring entity safely.

Where applicable, manuals containing instructions of the manufacturer about the application in use of the item should be provided in English. If required by procuring entity, technical experts should be sent by the manufacturer for application/installation of the item at site.

E. PERFORMANCE BANK GUARANTEE.

Successful bidders shall furnish a performance Bank Guarantee of 10% of value of purchase order on the prescribed Performa provided that the guarantee is issued by any of the approved Banks within 20 days of issuance of the letter of acceptance. The performance guarantee shall be returned within 10 days after the expiry of warranty period and satisfactory performance. If such guarantee is issued by a foreign Bank, it should be countersigned by a Pakistani bank on the approved list of banks.

F. FORFEITURE OF PERFORMANCE BANK GUARANTY

The performance Bank Guarantee may be forfeited if the service provider fails to deliver or supply goods in accordance with the terms and conditions of the purchase order or commits any breach of the contract/purchase order.

PAYMENT CLAUSE

Payment shall be made on the production of the following documents.

- a. The supplier/vendor submits manually signed invoice in triplicate certifying that merchandise supplied is in accordance with the contract. The invoice must show the purchase order No_____, Material Receiving Report No______, and acceptance note No_____, with date, price/rate of each item.
- b. Material/Deliverables receiving report (in original) signed by the Authorized Representative of procuring entity in acknowledgment of having received all supplies/deliveries in accordance with the purchase order/contract agreement.
- c. Authenticated sales tax invoice in original as prescribed in the sales tax Act 1990.
- d. Valid income tax exemption certificate (otherwise income tax at current applicable rates shall be deducted from the invoice. (Where applicable).
- e. National Tax Number.
- f. Sales tax registration number.
- g. Certificate in original issued by the independent inspection team (where applicable).
- h. Bank Account Number and Branch.
- i. Recovery of all applicable taxes at source should be made as per rules.
- j. Certificate from procuring entity stating goods as per standard/professional requirements.

DETAIL OF STANDARDS

Sr. #	Meets best quality standards (5)	Meets acceptable quality standards (4)	Meets un acceptable quality standards (3)	Does not meet acceptable quality standards (2)
1.				
2.				

Delivery/Deliverable accepted since it meets acceptable/best quality standards (5/4)

Assessment /evaluation officers Name and Designation

G. OBLIGATIONS AND OPTIONS IN CASE OF NON FULFILLMENT OF CONTRACTUAL OBLIGATIONS BY THE SUPPLIER

- The supplier shall perform services in accordance with recognized standard, applicable laws and regulations.
- The supplier shall appoint a focal person who shall coordinate with procuring entity at ball times during the execution of project.
- The supplier shall carry out the services with due diligence and efficiency and in conformity with sound practice.
- The supplier shall act at all times so as to protect the interest of clients and shall take all reasonable steps to keep all expenses to minimum consistent with sound economic and other practices. The supplier shall furnish the client such information relating to the services as the client may from time to time reasonably request.
- Except with the prior written approval of the client, the supplier shall not assign or transfer the agreement for good or any part thereof nor engage any other independent supplier or subcontractor to perform any part of services without prior consent of the procuring entity.
- The supplier agrees that no proprietary and confidential information received by the supplier from the client shall be disclosed to a third party unless the supplier received a written permission from the client to do so.

The procuring entity may take any of the following actions if after the placement of the purchase order the supplier fails to deliver the goods within the prescribed period, according to the specifications, quantities and other terms and conditions given in the purchase order/contract agreement.

H. DISPUTES AND CONTROVERSIES / DISPUTE RESOLUTION

- i. Procuring entity shall constitute a committee consisting of odd number of persons with proper powers and authorizations to redress complaints of bidders that may arise prior to issuance of purchase order / contract agreement, in accordance with the KPPRA Rules 2014.
- ii. If a bidder is not satisfied with the decision of the committee, he may take recourse to the KPPRA.
- iii. The mere fact of lodging a complaint shall not warrant suspension of procurement process.
- iv. Any dispute or difference arising out of the agreement which cannot be amicably settled between the parties, shall be finally settled by KPPRA whose decision will final and bidding on both the parties.

I. INDEMNITY

The supplier shall at all times indemnify the procuring entity against the claims which may be made in respect of the goods for infringement of any right protected by patent, registration of design or trade mark and shall take all risks of accident of damages which may cause a failure of the supply for whatever cause arising and the entire responsibility for the sufficiency of all.

The means used by him for the fulfillment of the contract; provided always that in event of any claim in respect of alleged breach of a patent reregistered design or trade mark being made against the procuring entity, it shall notify the supplier of the same and the supplier shall be at liberty at his own expense to conduct negotiations for settlements of any litigation that may arise there from.

J. SUB-LETTING OF THE CONTRACT

The supplier shall not sub-let or assign this contract or any part thereof without the written permission of the procuring entity. In the event of the service provider sub-letting or assigning this contract or any part thereof without such permission, the procuring entity shall be entitled cancel the contract and to purchase the goods elsewhere on the supplier's risk and cost and the supplier shall be liable for any loss or damage which the procuring entity may sustain in consequence of arising out of such purchase.

K. BRIBES COMMISSION ETC

Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the contractor or his partner, agent or servant, or any one on his or their behalf to any officer servant, representative or agent of the procuring entity or any person on its behalf in relation to the obtaining or to the execution of this or any other contract with procuring entity, shall in addition to any criminal liability which he may incur, subject the contractor to cancellation of this and all other contracts and also to payments of any loss or damage resulting from such cancellation and the procuring entity shall be entitled to deduct the amounts so payable from any moneys, otherwise due to the supplier under this or any other contract. Any question or

Dispute to as to the commission of any offence under these clues shall be settled by the procuring entity in such manner as it shall think fit in sufficient, and its decision shall be final and conclusive.

L. TERMINATION END OF SERVICES

The agreement shall get terminated when, pursuant to the provisions of hereof, the services have been completed in full and final payment has been made.

TERMINATION BY THE SUPPLIER

The supplier may suspend the agreement by a written notice of thirty days only if the supplier does not receive payments under this agreement within thirty days of submission of its invoice.

If the payment is still not made to the supplier after thirty days of notice of suspension, the supplier/Vendor may terminate this agreement in whole or in part by giving fifteen days advance notice of intent to terminate. If the Agreement is suspended by the supplier under such circumstances, the procuring entity shall pay, within a period of thirty days of the date of such notice of intent to terminate referred above, all payments due to the supplier.

M. FORCE MAJEURE

The term "FORCE MAJURE" as employed herein shall mean acts of GOD, strikes, lockout, or other industrial disturbance, act of public enemy, wars, blockades, insurrections, riots, epidemics, landslides, earthquakes, storms, lightning, floods, washouts, civil disturbance, explosions and any other similar events not within the control of either party and which by the exercise of due diligence neither party is able to overcome.

If either party is temporarily unable by reason of force majeure to meet any of its obligations under the agreement, and if such party gives to the other party written notice, of the event within fifteen days after its occurrence, such obligations of the party, as it is unable to perform by reason of the event, shall be suspended for as long as the inability continuous. Neither party shall be liable to the other party for loss or damage sustained by such other party arising from any event referred to as force majeure or delays arising from such events. Force Majeure shall not include insufficiency of funds or failure to make any payment required under agreement

N. APPLICABLE LAWS

This agreement shall, in all respects be read and constructed and shall operate in conformity with the KPPRA Act 2012 and KPPRA Rules 2014.

O. CONTRACT AMENDMENT

No variation in or modifications to the terms of the agreements shall be made, accept by a written amendment signed by the parties hereto.

P. NOTICES

Any notice given by any of the parties hereto shall be sufficient only if in writing and delivered in person or through registered mail as follows:

To: The Client		
To: The Supplier		

Or to such other address as either of these parties shall designate by notice given as required herein. Notice shall be effective when delivered.

5) TECHNICAL AND FINANCIAL PROPOSAL

TECHNICAL PROPOSAL

The technical proposal shall include company's profile, company's registrations and certificates, references to past experiences, technical specifications and brochures for the goods to be supplied, affidavit mentioned in various Lots and a Project Implementation Plan (PIP) for the supply of goods

FINANCIAL PROPOSAL

The financial proposal shall include, the Financial Proposal, bid security valuing 2% of the total quoted price, and quote the price in the following table, using company's official letter head.

Price schedule in Pak. Rupees

S#	Description/Specification	Qty	Unit Price (Rs)	Applic able Taxes	Unit Price Includi ng taxes.	Total Price includin g taxes
A	В	C	D	E	F (D + E)	G (DxF)
1.						

Note: in case of discrepancy between unit price and total, the unit price shall prevail.

A. TECHNICAL EVALUATION CRITERIA

There will be a two-stage technical evaluation followed by a financial evaluation. Preliminary evaluation (Initial Screening) of technical bids will be done based on following Mandatory requirements: Following is the qualification criteria checklist and mandatory clauses and if bidders failed to fulfill any one of the following clauses than his case will not be consider for further evaluation and will be rejected.

CHECK LIST

The provision of this checklist is essential prerequisite along with submission of tenders.

<u>SR.</u> #	<u>DETAIL</u>	Yes /No	<u>PAGE</u> <u>#</u>
	Mandatory Requirements		
1.	Bid Security 02% of tender value with financial proposal.		
2.	Bidder's firm must have minimum three (03) years of business experience and registration in Pakistan.		
3.	Mandatory warranty of the product as per terms and conditions mentioned in the Various Lots.		
4.	Acceptance of terms and conditions, tender documents duly signed and stamped.		
5.	Company Profile		
6.	An affidavit on stamp paper of Rs.100/- submitting following clauses: i) that maintenance of goods and replacement of defective parts under warranty shall be done, ii) That the firm is never been blacklisted or under-investigation on any grounds whatsoever by any Private, Semi Government or Government organization.		
7.	Price should not be mentioned on technical bid.		
8.	Last three years Bank statement (Minimum turnover Rs. 600 million) National tax number and General Sale Tax number with certificate. Registration with Khyber Pakhtunkhwa Revenue Authority (KPRA);		
9.	List of similar nature products supplied to Govt. or private sector. Supply orders detail over last 5 years. (Lot No:1 &2)		
10	The Tender shall be filed in / accompanied by the prescribed Forms, Annexes, Schedules, Documents, Brochures, Literature, etc. which shall be typed, completely filled in, stamped and signed by the Bidder or his Authorized Representative. In case of copies, signed and stamped photocopies may be submitted. If volume of the bid contains various set(s) of documents the same must be properly numbered and tagged in binding shape		
11	Bidder must provide Manufacturer Authorization letter (MAL/MAF) issued direct from Manufacturer for all Active Equipment items (Switches, Firewalls, WLAN Controller, Access Points (AP), Servers, Thin Clients, and Desktops) to participate in tender.		
12	Detail of technical staff to be provided.		
13	Hardware Warranty and Support for all components (As mentioned in Various Lots).		
14	OEM must have local support/Partner/distributor Presence in Pakistan		
15	The Bidder is allowed to bid for any or all Lots separately.		
16	Bidder must have technical capabilities of CCIE/HCIE/CDCP or equivalent and Pre sales and Post Sales Team.		
17	Nation Wide Offices in Major cities of Pakistan.		
18	Please mention the country of origin/manufacturing / assembly of the quoted brand / model		
19	Bidder participated in the technical evaluation criteria should give presentation regarding the solution submitted in the Technical proposal.		
20	Compliance with tender detail ie Minimum/Basic Equivalent specifications of hardware and other equipment.		
21	Consortium of Bidders are not allowed/Eligible		

	22.	All Network equipment (Core Switch, Access Switch, Wireless LAN Controller and	
		Access Points should be from single OEM)	
Ī	23.	Formal Professional Training, international Level Certifications with preparation on	
		Equipment's/Products (Firewall, Switches, Wireless LAN Controller, APS, Servers,	
		and Virtualization) will be the Bidder's/Vendor Responsibility.	
	24.	Technical Presentation on the Proposed solution/ Detail Project Execution Plan	

Note: All the Firms are required to attach all documents as per above check list strictly

Sign and Stamp of the bidder

In the second step the following evaluation factors/ criteria will be employed on TECHNICAL PROPOSALS. The number of points allocated to each factor shall be specified in the Evaluation Report. Only bids securing minimum of 70 marks would be declared as technically accepted

TECHNICAL EVALUATION CRITERIA: Technical Proposal will be evaluated through the following Evaluation Criteria:

Technical Criteria for LOT1 No: 1 and LOT No: 2

S#	Headings	Marks	Evaluation Parameters	Marks up to
1	Technical Proposals	100	Evaluation Farameters	Max
	Product Specification/ Hardware Capabilities		Must deployed 3 similar projects (1 Project 5 Marks)	15
1A		34	OEM Principal/Local Partner/Distributor presence in Pakistan for Last 5 Years,(Each Year 2 Marks)	10
			Technical Presentation on the Proposed solution	9
			After Sales Service within Warranty Period (1 year 1 marks)	5
1D	Support Capabilities	30	Support team (Technical Team member 2 marks for each)	10
1B			CCIE/HCIE/CDCP or Equivalent	5
			Nation Wide Offices in Major cities of Pakistan (1 Branch office 1 marks) and Peshawar office =5Marks	10
			Annual Turnover of last 3 Financial year up to:	
			200M = 5 marks	15
1C	Financial Capabilities	21	400 M = 10 marks	
			600M = 15 marks	
		Income tax paid last 3 years, Each Year 2 Marks		6
1D	Relevant Experience	15	3 Work Orders for supply of hardware/ Equipment of same nature with total cost of 200M & above during last 5 years.	15
			200 Million Project 5 Marks	
			400 Million Project 10 Marks	
<u></u>			600 Million Project 15 Marks	

Technical Criteria for LOT1 No: 3 and LOT No: 4

S#	Headings	Marks	E	Max. Marks
1	Technical Proposal	100	Evaluation Parameters	Max. Marks
			Must deployed 3 similar projects (1 Project 5 Marks)	15
1A	Product Specification/ Hardware Capabilities	34	OEM Principal/Local Partner/Distributor presence in Pakistan for Last 5 Years, (Each Year 2 Marks	10
			Technical Presentation on the Proposed solution	9
			After Sales Service within Warranty Period (1 year 1 marks)	5
1B	Support Capabilities	20	Support team (Technical Team member 1 marks for each)	5
			Nation Wide Offices in Major cities of Pakistan (1 Branch office 1 marks) and Peshawar office =5Marks	10
1C	Financial Capabilities	26	Annual Turn-over in last 3 financial years 200M = 5 Marks 300M = 10 Marks 400M = 15 Marks 500M= 20 Marks	20
			Income tax paid last 3 years, Each Year 2 Marks	6
1D	Relevant Experience	20	04 Work orders for supply of Hardware/equipment of same nature in Govt. or Private Sector with value of 40M in last five years. 10M Project = 5 Marks 20M Project = 10 Marks 30M Project = 15 Marks 40M Project = 20 Marks	20

Bidder who has not obtained the minimum qualification score of 70 marks out of the total 100 marks of Technical Evaluation shall not be considered for Financial Evaluation and their Financial Proposal will be returned unopened.

Criteria of Financial Evaluation:

Tender will be awarded to the Responding Organization with technical qualified and financially lowest bidder,

Note: Any document found fake at any stage during the bidding process may lead toward disqualification of the bidder and the procurement committee of project has right to reject or accept any proposal at any stage without assigning any reason.

Lot # 1: Upgradation of Network & Security Devices and Network Infrastructure (Turnkey Solution)

Sr.#	Description	Qty
	<u>Layer-3 Manageable Core Switch 48 ports (Rack Mounted)</u>	
	Juniper/Cisco/Ruckus or Equivalent Specs	
	48 PORTS SFP+ and 6 QSFP+ Ports (minimum) SWITCH	
	 Switch must support 48x 10 Giga SFP+ ports and 6x QSFP+ Ports for uplink or stacking Functional/Ready as per required Proposed Network Infrastructure Switch should support minimum 5.76 Tbps. of Aggregating Stacked Option or Higher Switches should be stacked in Virtual Chassis through QSFP+ Minimum 500 Meter to 5 Km Distance which is Mandatory Switch should support 1.92 Tbps Capacity or Higher. Forwarding Capacity 1.44 Bpps or Higher. Switch must processor of Quad-core 1.5 GHz minimum. Switch must support the following specification minimum 8 GB DRAM or higher 2 GB NVRAM or higher 12 MB Packet Buffer or higher Switch support 96K MAC address entries or higher & 32K Router entries or higher Also support the 4K VLAN or higher, 32 PVLAN or higher, and 250 STP. Or higher 	
	• Maximum Routes = 128K on IPv4 or higher	
	• Maximum Routes = 7K on IPv6 or higher	
	• Switch must support hot-swappable redundant power supply and hot-swappable redundant	
1	fan.	02
	• Switch support following layer 2 features:	
	o Port Mirroring	
	Port loop Detection802.1ab and 802.3ad	
	 802.1ab and 802.3ad 802.1x Authentication 	
	o GVRP and 802.1Q	
	VLAN Stack Q-in-Q	
	o IEEE 802.1s	
	o RFC 2236, RFC 3376	
	o RFC 4541	
	 Link fault signaling 	
	o PIM-SM v2	
	o RFC 5176	
	O VSRP and MRP (v1,v2)	
	• Switch support Basic Layer 3 Protocols i.e. RIP, Static Routing, Port Based- ACL and VRRP.	
	 Switch also support the advance layer 3 Protocol i.e. OSPF v2 and v3, PIM-SM, PIM_DM, Virtual Route Redundancy Protocol (VRRP), VRRP-E and VRRP v3, BGP and GRE. If advance layer 3 options required license, then specify. ISSU (In Service Software Update). 	
	• Should support ≥10 Switch per Stack this is Mandatory.	
	• Stacked switches must support the failover mechanism for Master Controller in Stack.	
	• In stacking configuration switch must support Hot insertion and removal of stacked units	

- Out of Band Ethernet Port 10/100/1000Mbps RJ45, Console Port RJ45 to USB, File Transfer USB Port.
- Switch should support Open Flow 1.3 Support for Future Integration with SDN Controller.
- Switch should support Hybrid Port Mode on all the Switch Ports.
- sFlow Protocol should support on switch.
- QOS ACL Mapping and Marking of ToS/DSCP (CoS), ACL Mapping and Marking of 802.1p, ACL Mapping to Priority Queue, Classifying and Limiting Flows Based on TCP Flags, Honoring DSCP and 802.1p (CoS), Priority Flow Control (per device).
- Switch support the following security standards:
 - o MAC authentication
 - Web authentication
 - o IEEE 802.1X username export in sFlow
 - o EAP pass-through support
 - o RFC 5176
 - o Protection against Denial of Service (DoS) attacks
 - o SSH (v1, v2)
 - o Advanced Encryption Standard (AES) with SSHv2
 - o RADIUS/TACACS/TACACS+
- Support should be Advanced Hardware Replacement (Next Business Day), Includes Power Supplies & Fans, Lifetime software updates, for the life of the product.
 - Warranty and Support: 3-Years Hardware Warranty and OEM Support License.
 - Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - **KPPSC** should be able to directly open TAC cases with principal without partner involvement.
 - **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.
 - **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.

Sr.# Description Qty

2 Giga Bit Access Switches 24 Ports (24x 1G(POE), 4x10G Uplink) Juniper/Cisco/Ruckus or Equivalent Specs

- 24x 10/100/1000 ports, 2x 1G RJ45 (POE) ports, 4x 10G SFP uplink-ports Functional/Ready as per required Proposed Network Infrastructure
- Out of Band Ethernet Port 10/100/1000Mbps RJ45, Console Port RJ45 to USB, File Transfer USB Port.
- Switch should support 132Gbps Capacity or Higher.
- Forwarding Capacity 98Mbps or Higher.
- Switch must support the following specification minimum
- 1 GB DRAM
- 2 GB NVRAM
- 2MB Packet Buffer
- Switch support 16k MAC address entries and 1000 Router entries. Also support the 4K VLAN, 32 PVLAN, 250 STP, 4k ARP and 8 port maximum Trunk.
- Minimum 320Gbps of Aggregating Stacked Option or Higher
- Should support 12 Switch per Stack at Maximum Distance of 3 Km Capable.
- Open Flow 1.3 Support for Future Integration with SDN Controller

- Should support Hybrid Port Mode on all the Switch Ports
- ISSU (In Service Software Update)
- Hitless Fail Over to Auto Stand By Master Stack Controller
- Should Support Basic Layer 3 Protocols (Should have capability to Enhance the Layer Function by adding license for Future Use)
- QOS ACL Mapping and Marking of ToS/DSCP (CoS), ACL Mapping and Marking of 802.1p, ACL Mapping to Priority Queue, Classifying and Limiting Flows Based on TCP
- Flags, Honoring DSCP and 802.1p (CoS), Priority Flow Control (per device).
 - **Warranty and Support:** 3-Years Hardware Warranty and OEM Support License.
 - Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - **KPPSC** should be able to directly open TAC cases with principal without partner involvement.
 - Installation and Configuration: Complete Installation, Configuration and Integration will be bidder's responsibility.
 - Principal/Local Distributor/local Partner should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.

Sr.# **Description** Qty **Wireless Gigabit Access Points** 3

Juniper/Cisco/Ruckus or Equivalent Specs

- Access Point must support 802.11 a/b/g/n/ac/ax standards
- Support MU-MIMO and OFDMA
- The access point should work on 2.4GHz and 5 GHz band simultaneously.
- Access Point should support 574 Mbps (2.4 GHz) and 1200 Mbps (5 GHz).
- Access point must work on 2 x 2 MU-MIMO with 2 Spatial Streams on each band.
- Access Point should support Channelization of 20 MHz, 40 MHz and 80 MHz
- Dual Polarized Integrated Smart Directional antenna array, Support adaptive Polarization Diversity- MRC (PD-MRC)
- Integrated Antenna elements must support 128 unique antenna patterns.
- Device must support 3 dBi physical antenna gain and combined antenna gain of upto 6dB.
- Transmit power of AP: 26 dBm on 2.4 GHz and 25 dBm on 5 GHz Radio.
- Support automatic RF Channel selection through maximum Channel Throughput Technology.
- Access Point should support WMM, Power Save, LDPC, STBC, 802.11r/k/v
- Must have 2 x 1Gbps Ethernet port and AP should support 802.3af/at PoE standards. USB port for BLE smart beacons.
- Wireless Security: WPA-PSK, WPA-TKIP, WPA2 AES, WPA3, 802.11i, Dynamic PSK,
- AP should authenticate via RADIUS, AD and LDAP
- Support integrated NAT and DHCP as Standalone Access Point.
- The access point should support 802.1q VLAN tagging
- AP should support 31 or above SSID.
- Implement Wi-Fi alliance standards 802.11d, 802.11h
- Up-to 512 Concurrent client support.
- Limited Lifetime warranty
- Device should be PTA type approved.
 - Warranty and Support: 3-Years Hardware Warranty and OEM Support License.
 - Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided.

50

- **KPPSC** should be able to directly open TAC cases with principal without partner involvement.
- **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.
- **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.

Sr.# Description Qty

4

<u>Physical Access Point Controller</u> Juniper/Cisco/Ruckus or Equivalent Specs

• Should be capable to support 500 Access Points and 10,000 Users or higher

- Should have at least 2 x 10G SFP+ ports or higher functional/Ready as per required Proposed Network Infrastructure
- Support for State ful switch over capability with 1:1 active standby or N+1 redundancy
- Must have advanced application classification techniques with predefined and well-known application signatures
- Should support 802.11a/b/g/n/ac (wave 1 & wave 2)/ax
- Should support Wi-Fi Protected Access (WPA), WPA2, MD5, 3DES, TLS1.0, IKE, PKI, DTLS, TLS 1.2, 802.1X, RADIUS, EAP-TLS, EAP, Web-Based authentication, TACACS or equivalent
- Encryption standards: Static Wired Equivalent Privacy (WEP), AES, SSL and TLS 2048-bit and 802.1AE MACsec encryption
- May have guest access support using self-registered portal (password should be sent via SMS) and employee-sponsored portal (password should be provided through employee)
- Controller should support WEP, WPA-TKIP, WPA2-AES, 802.11i, 802.1x/EAP, PSK, WISPr/Equivalent, WEP
- Management and reporting capabilities:
 - o Single pane of glass management
 - o Deep application visibility
 - o Wireless clients' visibility
 - o Centralized visibility of distributed networks
 - Provides comprehensive visibility into network operations and Accelerates network and client troubleshooting
 - Advanced Client Troubleshooting
 - Warranty and Support: 3-Years Hardware Warranty and OEM Support.
 - Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - All Network equipment (Core Switch, Access Switch, Wireless LAN Controller and Access Points should be from single vendor)
 - **KPPSC** should be able to directly open TAC cases with principal without partner involvement.
 - **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.
 - **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.

Interfaces:

- 2x USB Ports
- 1x Console Port
- 2x GE RJ45 MGMT/HA Ports
- 16x GE RJ45 Ports
- 8x GE SFP Slots
- 4x 10GE/GE SFP+/SFP Slots
- 4x 25GE/10GE SFP28/SFP+ Ultra Low Latency Slots

Features:

- Superior firewall performance for IPv4/IPv6, SCTP, and multicast traffic with ultralow latency
- VPN, CAPWAP, and IP tunnel acceleration
- Anomaly-based intrusion prevention, checksum offload, and packet defragmentation
- Traffic shaping and priority queuing
- IPS Throughput 14 Gbps
- NGFW Throughput 11.5 Gbps
- Threat Protection Throughput 10.5 Gbps
- IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP) 139 / 137.5 / 70 Gbps
- IPv6 Firewall Throughput (1518 / 512 / 64 byte, UDP) 139 / 137.5 / 70 Gbps
- Firewall Latency (64 byte, UDP) 4.12 μs
- Firewall Throughput (Packet per Second) 105 Mpps
- Concurrent Sessions (TCP) 7.8 Million
- New Sessions/Second (TCP) 550000
- Firewall Policies 10000
- IPsec VPN Throughput (512 byte) 155 Gbps
- Gateway-to-Gateway IPsec VPN Tunnels 2000
- Client-to-Gateway IPsec VPN Tunnels 50000
- SSL-VPN Throughput 4.3 Gbps
- Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode) 2500
- SSL Inspection Throughput (IPS, avg. HTTPS) 9 Gbps
- SSL Inspection CPS (IPS, avg. HTTPS) 7500
- SSL Inspection Concurrent Session (IPS, avg. HTTPS) 840000
- Application Control Throughput (HTTP 64K) 32 Gbps
- CAPWAP Throughput (HTTP 64K) TBA
- Virtual Domains (Default / Maximum) 10 / 10
- Maximum Number of Switches Supported 96
- Maximum Number of APs (Total / Tunnel) 1024 / 512
- Maximum Number of Tokens 5000
- High Availability Configurations Active-Active, Active-Passive, Clustering

Additional Features Requires:

Secure Web Gateway

General Requirement

- Must Be Listed in Gartner Magic Quadrant for Secure Web Gateway
- Must Have Minimum 400Mbps Live Throughput (All Features Enabled)
- Must Have Minimum 2000 Concurrent Users
- Must Have Minimum 1TB Storage Capacity
- Must Have Minimum 6 x 1G Ethernet Interface
- Must Have Minimum 2 x 1G SFP Interface
- Must Quote 3 Years Traffic Control Features License
- Must Quote 3 Years Software Upgrade & 24x7 Technical Support
- Must Quote 3 Years Hardware Warranty Service
- Must Quote Onsite Configuration & Installation

User Authentication & Management

- Must Have User Identification Base on IP Address, MAC Address, Hostname
- Must Have User Binding Base on IP Address and MAC Address
- Must Have Identification of Endpoint such as Mobile, PC and etc.
- Must Have SMS Authentication, Captive Portal and etc.
- Must Have Captive Portal Integration with Microsoft Active Directory
- Must Have Customizable Captive Portal HTML Page
- Must Have URL Redirection After Captive Portal Authentication
- Must Have Single Sign-On (SSO) Authentication Base on Active Directory, Radius, POP3 and other Database Servers
- Must Have QR Code Authentication with Self-Registration Capability

Application Control & Identification

- Must Have More Than 6500+ Application Signatures
- Must Have to Block HTTPS Application and HTTPS Traffic without Install SSL Certificate
- Must Have to Display Warning Message for Blocked URL
- Must Have Application Control Policy with Application Based, Service Based, User Based and Schedule Based Policy
- Must Have Punishment Policy for User Internet Violation (Block Internet Access for Certain Period, Limit Bandwidth Speed for Certain Period and etc.)
- Must Have Anti-Proxy Module Effectively Block Proxy Application / VPN Application such as TOR Browser, Browsec, Ultrasurf, FreeGateand etc.

Bandwidth Management

- Must Have Quota Based Bandwidth Management (Daily and Monthly)
- Must Have Limited Bandwidth Channel and Priority Bandwidth Channel
- Must Have Dynamic Bandwidth Management
- Must Have Per User Based Bandwidth Management
- Must Have Bandwidth Management Policy with Application Based, Service Based, User Based and Schedule Based

• Internal & External Report Center

- Must Have Built-In Internal Report Center for Minimum 6 Months Logs
- Must Have External Report Center Hardware OR Software for Longer Report Logs Storage
- Must Have to Generate Overall Network Information such as Maximum Concurrent User, Maximum Bandwidth Utilization, Network Peak Hour and etc.
- Must Have to Record User Traffic Logs with Details such as URL, Source IP Address, Destination IP Address, DNS Server, MAC Address, Source Port, Destination Port, Protocol, Timeline and etc.
- Must Have to Generate Report with Different Timeline such as Yearly, Monthly, Weekly, Hourly, Minutely and Secondly
- Must Have to Log Incoming Email and Outgoing Email with Sender Address, Recipient Address, Email Title, Send Time, Receive Time, Email Attachment and etc.
- Must Have Big Data Report Analysis Capability such as Internet Addiction Risk Analysis, Electricity Waste Analysis and etc.
 - Warranty and Support: 3-Years Hardware Warranty and OEM Support License.
 - Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - All Network equipment (Core Switch, Access Switch, Wireless LAN Controller and Access Points should be from single vendor)
 - **KPPSC** should be able to directly open TAC cases with principal without partner involvement.

		,
	 Installation and Configuration: Complete Installation, Configuration and Integration will be bidder's responsibility. Principal/Local Distributor/local Partner should be present in Pakistan for more 	
	than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.	
6	Networking tool kit (Proskit or Equivalent)	
U	Professional and delegation in a fatiguity of the second (200 mm)	1
	 Professional modular crimping/stripping/cutting tool (200 mm) Utility knife (3 blades self-loading) 	
	 Auto stop measuring tape (3 m) 	
	Screwdriver probe voltage tester	
	Dual color side cutting pliers (165 mm) LED G. 11: 1	
	LED flashlightMini LAN cable tester	
	 Precision wire stripper (AWG 20/18/16/14/12/10) 	
	• Telecom crimper/pliers	
	Impact terminal tool for krone	
	• Wire stripper	
	 Phillips screwdriver (#0 x 75 mm) Slotted screwdriver (3.0 x 75 mm) 	
	• Slotted screwdriver (6.0 x 100 mm)	
	• Phillips screwdriver (#2 x 100 mm)	
	• Tool bag $(340 \times 222 \times 600 \text{ mm})$	
7	Fiber Optic Deployment, Installation, commissioning including ODF, Pigtail, 24/48 Fiber Cabling, Splicing, 250 Nodes of whole KP PSC, Ducting, etc Complete Network of Thin	1
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture	
Sr.#	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair)	Otv
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture	Qty
Sr.# 1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be	Qty
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11)	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual	Qty APA
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11)	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Caté U/UTP Cable (Twisted Pair) (Branded)	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Caté U/UTP Cable (Twisted Pair) (Branded) Cable CATé U/UTP, 4-Pair, 1G / 250 MHz,	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Caté U/UTP Cable (Twisted Pair) (Branded) Cable CATé U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max.	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69%	
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U	
	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Description Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm	APA
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm RoHS compliant REACH compliant	
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm RoHS compliant REACH compliant Housing material: 1.5 mm SPCC cold rolled steel sheet, powder-coated	APA
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm RoHS compliant REACH compliant Housing material: 1.5 mm SPCC cold rolled steel sheet, powder-coated Material standard: EN 10 130(1991), BS 1449, NFA 36/401, DIN 1623, UNI 5866, UNE 36-	APA
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm RoHS compliant REACH compliant Housing material: 1.5 mm SPCC cold rolled steel sheet, powder-coated Material standard: EN 10 130(1991), BS 1449, NFA 36/401, DIN 1623, UNI 5866, UNE 36-086, SIS, JIS G 3141, ASTM, SAE	APA
1	Clients (100 Nodes), Access Points, CBT Server and construction/Availability of furniture (Table, Chair) Passive Equipment (3M, SCHNEIDER, MOLEX, DIGITUS OR Equivalent) Note: Please ensure strict compliance with requirements. Inferior specifications will be rejected in the Technical Evaluation for all the Below Serials (1-11) * APA: As Per Actual * Heatmap Analysis Report Required Cat6 U/UTP Cable (Twisted Pair) (Branded) Cable CAT6 U/UTP, 4-Pair, 1G / 250 MHz, Conductor Wire Gauge: 23 AWG Conductor Type: Solid Bare Copper Insulation Type: High Density Polyethylene Sheath: PVC Type Propagation delay: 20 nS/100 m max. NVP: 69% Structure: 4 x 2 AWG 23/1, solid twisted pair • Color: Blue • Length: 305 m • Jacket: PVC Packing: 305 Meter / 1,000 Feet Reel Box 24 PORT KEYSTONE PATCH PANEL, UNLOADED, SHIELDED, 19" 1U Dimensions: 24 Port Patch Panel: 44mm X 125mm X 482mm RoHS compliant REACH compliant Housing material: 1.5 mm SPCC cold rolled steel sheet, powder-coated Material standard: EN 10 130(1991), BS 1449, NFA 36/401, DIN 1623, UNI 5866, UNE 36-	APA

	CABLE MANAGEMENT PANEL, 1U	
3	1U Standard 19" rack mount	APA
	Graphite grey powder coat	
	Dimensions: 44mm x 483mm x 74mm	
	I/O Jack/Back Box with Face Plate (Branded)	
	Transmission properties: Category 6	
4	Area of application: Up to 250 MHz, 1GBase-T	APA
4	Norms: ISO/IEC 11801 2nd Ed., EN 50173-1, EIA/TIA 568-C	71171
	General properties: Suitable for 483 mm (19") cabinet mounting	
	RJ45 female, 8P8C	
	Cable installation via LSA strips, color coded according to EIA/TIA 568 A & B	
	Cable fixing with cable tie	
	Tool-free installation	
	1xDual Gang Face Plate Shutter Less: Halogen free, with dust cover,	
	1x Back box	
	CAT 6 U-UTP patch cable (Branded) 1meter	
	AWG 24 Bare Copper 7/0.20-0.015mm	
5	Color Code Orange x White, Green x White, Blue x White, Brown x White	APA
	Insulation HD-PE Outer Sheath	
	LSOH – flame resistant, low smoke zero halogen Outer	
	Diameter 5.8mm +/- 0.2 mm RJ45 Connector 50µin (microinch) minimum Gold plate in	
	localized area (Gold flash over remainder) over 100 µin (microinch) Nickel undercoat contact	
	pins	
	CAT 6 U-UTP patch cable (Branded) 3 meter	
	AWG 24 Bare Copper 7/0.20-0.015mm	
6	Color Code Orange x White, Green x White, Blue x White, Brown x White	APA
	Insulation HD-PE Outer Sheath	
	LSOH – flame resistant, low smoke zero halogen Outer	
	Diameter 5.8mm +/- 0.2 mm RJ45 Connector 50µin (microinch) minimum Gold plate in	
	localized area (Gold flash over remainder) over 100 µin (microinch) Nickel undercoat contact	
	·	
	pins Eiber Ontie Cable Single Made OS2 24 course (non-mater)	ADA
7	Fiber Optic Cable Single Mode OS2 24 cores (per meter)	APA
_	24 Core Single Mode Lite Armored Fiber Cable	
_	Optical distribution Frame (ODF) 12 Port	
8	12 Port ODF	APA
	Rack Mount / Wall mount Loaded with Coupler; Splicing Tray/s; Pig Tails Complete in all	
	respect	
9	Optical distribution Frame (ODF) 48 port	
7	24 Port ODF	APA
	Rack Mount / Wall mount Loaded with Coupler; Splicing Tray/s; Pig Tails Complete in all	
10	respect Fiber Option Patch cord SC-LC OS2, 3M	APA
10	Fiber Option Patch Cord SC-LC OS2, 5M	APA
11	Data Cabinet 12U with 1KVA UPS and Batteries (1-Year Warranty)	
	Wall Mount data cabinet powder coated with 2x fans and 1 x 4 socket PDU	APA
	Wan Mount data eachiet powaci couted with 22 tails and 1 % 1 section 12 c	
12	Fiber Optic deployment, Installation commissioning including ODF, Pigtail, splicing (1	APA
	Job)	
1.5		
13	UTP Cat6 cable deployment including ducting, tagging, patch panel installation and	APA
	termination of 50 data and 50 Wifi AP points (1 job)	

14 Specifications Computer Table Size 3' x 2' x 30" (For Lab)

All structure made by¾"thicklamination board of good quality also used solid wood with N.C. lacquer polish (as per drawing).





With 2 x Flat 3 Pins Power Socket and Ethernet connectivity other required

Specifications Computer Chair Seat with cushion die cost foam c

Seat with cushion die cost foam covered with imported cloth. Five Star imported hydraulic base with wheel (as per sample).





Lot # 2: Upgradation of Server Room and IT Lab for Computer Based Testing (Turnkey Solution)

Sr.#	Description	Qty
	High End Server for KP PSC Applications	
1	(Dell/HP/Lenovo or Equivalent)	
		4
	• Processor: Dual Intel® Xeon® Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache,	•
	Turbo, HT (135W) DDR4-2666 or Higher	
	• Form Factor: 2U Rackmount Server	
	• Hard Drive Form Factor: 3.5"	
	• Heat sink: Standard Heatsink for 2 CPU configuration or Higher	
	• Memory: 4x 32GB RDIMM, 3200MT/s, Dual Rank, or higher support up to 1TB	
	Maximum.	
	• Cache Disks: 2x460 GB SSD	
	• Hard Drives: 4 x 2.4TB 10K RPM SAS ISE 12Gbps 512e 2.5in Hot-plug Hard Drive or	
	Higher.	
	• RAID Controller: Supported.	
	• OS Hard Drives: 2x240GB SSD (Raid 1)	
	• 1G NIC Adapter: Quad Port 1GbE BASE-T Adapter, PCIe or Higher	
	• 10G NIC Adapter: Dual Port 10GbE SFP+, OCP NIC or Higher	
	• SFP Transceivers: 2x SFP+ SR Optic, 10GbE, for all SFP+ ports or Equivalent	
	Bezel: Standard Bezel	
	Management: Standard Management with Dedicated Port	
	• Chassis: 2.5" Chassis with up to 16 SAS/SATA Drives, 2 CPU Support	
	• Power Supplies: Dual Redundant 800W Mixed Mode Hot-Plug Fault Tolerant with 2x	
	C13/C14, 4M, 250V, 10A Power Cords or Higher	
	• Rail Kit: Sliding Rails with Cable Management Arm	
	• Principal/Local Distributor/local Partner should be present in Pakistan for more than	
	5 years and have local warehouse to support next business day replacement in case hardware gets faulty.	
	 Warranty: 3- Years NBD Warranty and must have OEM Service Center/Parts Center 	
	in major cities in Pakistan	
	Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM	
	must be provided.	
	• Installation and Configuration: Complete Installation, Configuration and Integration	
	will be bidder's responsibility.	
	• •	
	Backup Servers for Disaster Recovery	
2	• Processor: Dual Intel® Xeon® Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache,	2
	Turbo, HT (135W) DDR4-2666 or Higher	
	• Form Factor: 2U Rackmount Server	
	• Hard Drive Form Factor: 3.5"	
	• Heat sink: Standard Heatsink for 2 CPU configuration or Higher	
	• Memory: 4x 32GB RDIMM, 3200MT/s, Dual Rank, or higher support up to 1TB	
	Maximum.	
	• Hard Drives: 12 x 2.4TB 10K RPM SAS ISE 12Gbps 512e 2.5in Hot-plug Hard Drive or	
	Higher.	
	• Cache Disks: 2x960 GB SSD	
	OS Hard Drives: 2x240GB SSD (Raid 1)	

- **RAID Controller:** Supported.
- 1G NIC Adapter: Quad Port 1GbE BASE-T Adapter, PCIe or Higher
- 10G NIC Adapter: Dual Port 10GbE SFP+, OCP NIC or Higher
- SFP Transceivers: 2x SFP+ SR Optic, 10GbE, for all SFP+ ports or Equivalent
- **Bezel:** Standard Bezel
- Management: Standard Management with Dedicated Port
- Chassis: 2.5" Chassis with up to 16 SAS/SATA Drives, 2 CPU Support
- **Power Supplies:** Dual Redundant 800W Mixed Mode Hot-Plug Fault Tolerant with 2x C13/C14, 4M, 250V, 10A Power Cords or Higher
- Rail Kit: Sliding Rails with Cable Management Arm
- Operating System: Windows Server 2020 for Server 2 Core License Pack (x24) with Enabled Hyper-V
 - o Hypervisor (Hyper-V) License for servers
 - Main Feature: Server virtualization and consolidation with centralized management
 - Installation: Provide installation and configuration of hypervisors on physical machines, centralized management.
 - **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.
 - Warranty: 3- Years NBD Warranty and & must have OEM Service Center/Parts Center in major cities in Pakistan
 - **Manufacturer Authorization letter** (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.

Additional Features:

Modular Datacenter with Containment Racking Solution (Or Equivalent Specs) Cabinets:

2 x 42U Closed Cabinet kit, dimension 600mm(W)*1200mm(D)*2000mm(H). Including 9-folded support frame, mounting flange, top panel with brush, bottom panel with brush, wheels and cups, front cold air management channel, and rear hot air management channel, sandwich type transparent front door with thermal insulation, split rear doors, emergency ventilation system to open doors upon over temperature. Metal Door without glass. Side doors with insulation and side air channel sealing panels with insulation. Environmental lights at front and rear side. Including blanking panels, cable organizer, cable plate and cable rings.

Precision Cooling and Thermal Management System:

1 x 7.6kW or above In-Row type, cooling with humidification and dehumidification, inverter compressor, outdoor condenser and drain pump included.

Power System:

Redundant UPS System: 2 x UPS rack mount, 6kVA high frequency type, output PF 1.0, 220V/220V, 2U height

Redundant Power Distribution Module: 2 x Rack mount PDM, 63A 1P power input, including power meters, surge protection, and power distribution and management branches of 2* UPS, 2* Cooling, 1* ups bypass, 2* PDU, and 1*surge protection, 3U height.

Dual Basic PDU for each rack: 32A/1Phase input, 12*C13, 4*C19, indication light, vertical mount, with terminal box.

Battery package: VRLA type, 15mins backup

Monitoring System:

Integrated monitoring host with built in 10-inch or bigger display on Containment Door, communicates with sensors (temperature & humidity, smoke, leaking, door open) and equipment (cooling, ups and power meters). Web portal and Modbus-TCP port. Wall mounting type. Temperature and humidity sensor, Smoke sensor, alarm light, Water flooding sensor, none positioning type in all racks.

Security System:

Access Controller on all racks on both side (front & rear): 3 in 1 Access control with biometric; ID card and Password. Door locking system Kit assembly, including magnetic type locks, and hydraulic open poles. 1 door of indoor micro data center.

Integrated Fire Fighting System:

FM200 automatic fire fighting system, rack mount 3U height, gas volume 1kg, temperature and smoke sensor integrated. Supports 1-2 cabinets

Server Room Civil & Mechanical Works

- Vinyl Flooring
- Walls Treatment
- Paint Work
- Distribution Box for Power Distribution of Racks

3 Windows Server 2020 for Server - 2 Core License Pack (x24) with Enabled Hyper-V

5

- Hypervisor (Hyper-V) License for servers
- Main Feature: Server virtualization and consolidation with centralized management
- Installation: Provide installation and configuration of hypervisors on physical machines, centralized management.

4 <u>CBT Server</u>

- **Processor:** Dual Intel® Xeon® Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache, Turbo, HT (135W) DDR4-2666 or Higher
- Form Factor: 2U Rackmount Server
- Hard Drive Form Factor: 3.5"
- **Heat sink:** Standard Heatsink for 2 CPU configuration or Higher
- **Memory:** 4x 32GB RDIMM, 3200MT/s, Dual Rank, or higher support up to 1TB Maximum.
- **Hard Drives:** 12 x 2.4TB 10K RPM SAS ISE 12Gbps 512e 2.5in Hot-plug Hard Drive or Higher.
- Cache Disks: 2x960 GB SSD
- **OS Hard Drives:** 2x240GB SSD (Raid 1)
- **RAID Controller:** Supported.
- 1G NIC Adapter: Quad Port 1GbE BASE-T Adapter, PCIe or Higher
- 10G NIC Adapter: Dual Port 10GbE SFP+, OCP NIC or Higher
- SFP Transceivers: 2x SFP+ SR Optic, 10GbE, for all SFP+ ports or Equivalent
- **Bezel:** Standard Bezel
- Management: Standard Management with Dedicated Port
- Chassis: 2.5" Chassis with up to 16 SAS/SATA Drives, 2 CPU Support
- **Power Supplies:** Dual Redundant 800W Mixed Mode Hot-Plug Fault Tolerant with 2x C13/C14, 4M, 250V, 10A Power Cords or Higher
- Rail Kit: Sliding Rails with Cable Management Arm

- **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.
- Warranty: 3- Years NBD Warranty and must have OEM Service Center/Parts Center in major cities in Pakistan
- **Manufacturer Authorization letter** (MAL/MAF) direct from Manufacturer/OEM must be provided.
- **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.

100 Thin Clients/Terminals (All in One)

5

- **Brand:** Dell /HP/Lenovo/Centrum or Equivalent
- **Processor:** Intel® Quad Core 2.0 GHZ® N5105 (4 MB cache, 4 cores, 4 threads) or higher
- Operating System: Windows 10 IoT Enterprise LTSC 2021, English
- RAM: 8 GB, 1 x 8 GB, DDR4 upgrade upto 32GB
- Storage: 256 GB, M.2, PCIe NVMe, SSD, Class 35 or above
- Wireless Card: Intel Wi-Fi 6 2x2 + BT 5.2 Wireless Card Internal antenna
- **Power**: 10 AC Adapter
- **Display**: 21 Monitor or higher
- **Software/Protocols**: Citrix workspace app/ Microsoft Remote Desktop Client / VMware Horizon Client
- **TPM Module:** TPM 2.0 Included
- **Keyboard & Mouse:** Wired Keyboard and Optical Mouse
- **I/O Peripherals support:** USB 2.0,3.0, 2 in 1 audio port
 - **Principal/Local Distributor/local Partner** should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.
 - Warranty: 3- Years NBD Warranty and OEM support
 - **Manufacturer Authorization letter** (MAL/MAF) direct from Manufacturer/OEM must be provided.
 - **Installation and Configuration:** Complete Installation, Configuration and Integration will be bidder's responsibility.

LOT # 3: Provision of Desktop, Laptops, Video Conferencing System and Miscellaneous Items

Sr.#	Description	Qty
	<u>LAPTOP</u>	
	Brand: Dell, Lenovo, HP or Equivalent	
	 Processor: Intel® CoreTM i5-1235U vPro Essentials (12 MB Cache, 2+8 Core, 12 Threads, 1.30 GHz to 4.40 GHz, 15W OR Equivalent / Better Operating System: Windows 11 Pro, English 	
	• Display: 15.6" HD 1366 x 768, 60Hz, 220 nit, non-touch, RGB Camera and Microphone, OR Equivalent / Better	
	• RAM:8 GB, 1 x 8 GB, DDR4, 3200MHz, OR Equivalent / Better	
	• Graphics: Intel® GT2 Graphics OR Equivalent / Better	
	• Storage: 256 GB, M.2 2230, Gen 3 PCIe x4 NVMe, SSD, Class 35	
1	• Wireless Card:Intel® AX211, 2x2 MIMO, 2400 Mbps, 2.4/5/6 GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth 5.2 OR Equivalent / Better	06
	• Battery:3 Cell, 41 Wh	
	• Principal/Local Distributor/local Partner should be present in Pakistan for more than 5 years and have local warehouse to support next business day replacement in case hardware gets faulty.	
	 Warranty: 3- Years NBD Warranty and must have OEM Service Center/Parts Center in major cities in Pakistan 	
	Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM	
	must be provided.	
	• Installation and Configuration: Complete Installation, Configuration and Integration will be bidder's responsibility.	
	Desktop Computers	
2	Brand: Dell, Lenovo, HP or Equivalent	40
		40
	Chassis: Tower / Mini Tower	
	• Chipset: Intel® Q670 Chipset Or Equivalent / Better Processor 12th Consenting Intel® ConsTM i7 12700 vPro® 25MB cocks 12 come 20	
	• Processor: 12th Generation Intel® Core TM i7-12700 vPro®, 25MB cache, 12 cores, 20 threads, 2.10GHz to 4.90GHz, 65W OR Equivalent / Better	
	• Memory: 8GB DDR4 expandable up to 128GB	
	• Storage: 1TB SATA HDD	
	Graphics: Intel® UHD Graphics	
	• Video Ports: 2 Display Port 1.4 ports, 1 HDMI 2.0	
	• Additional ports: RJ-45, Universal Audio Jack, 1 USB 3.2 Gen 2 Type-C® port (front), 1 USB 3.2 Gen 1 Type-A port with Power Share (front), 4 USB 3.2Gen1 ports (1 with Smart Power ON)	
	• Security: TPM 2.0, Intrusion switch,	
	• Wireless Card: Intel® AX211, 2x2 MIMO, 2400Mbps,2.40GHz/5GHz/6GHz, + Bluetooth® 5.2	
	• OS: Win 11 Pro	
	• Power Option: 240W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	
	 Keyboard & Mouse: Same Brand Monitor: Same Brand 20" LED Monitor 	
	• Principal/Local Distributor/local Partner should be present in Pakistan for more than	
	5 years and have local warehouse to support next business day replacement in case hardware gets faulty.	
	• Warranty: 3- Years NBD Warranty and must have OEM Service Center/Parts Center	
	in major cities in Pakistan Manufacturer Authorization letter (MAL/MAE) direct from Manufacturer/OEM	
	 Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM must be provided. 	
	• Installation and Configuration: Complete Installation, Configuration and Integration	
	will be bidder's responsibility.	

	Video Conferencing System	
3	Smart Screen	1
	Display Size 86"or higher	
	DLED Backlight	
	• Resolution: 3840 × 2160@60 Hz	
	• Operation System: Android 8.0	
	• Processor: 4-core A73 \times 2 + A53 \times 2, 1.5 GHz	
	• Memory: 3 GB	
	D. Th. I. G	
	<u>c</u>	
	Network: Built-in 100 Mbps NIC, supporting routing To all To all the latest and the second sec	
	Touch Type: Infrared touch screen	
	Glass: Smooth tempered glass being anti-glare and explosion-proof	
	Touch Point: 20-point multi-touch	
	• Touch Response Time: < 10 ms	
	• Touch Precision: $\pm 1 \text{ mm} (\geq 90\% \text{ touching area})$	
	• Interfaces: HDMI IN \times 2, MAX 4K@60 Hz, LINE IN \times 1, HDMI OUT \times 1, MAX	
	$4K@60$ Hz, LINE OUT \times 1,RJ45 (100 Mbps port) \times 2,	
	USB on front panel \times 2, USB on rear panel \times 2, touch USB \times 1, RS-232 \times 1	
	• Loudspeaker: Built-in 2 × 16 W loudspeaker	
	Bluetooth: Built-in BLE (Bluetooth Low Energy) module supports Bluetooth 5.0 and	
	previous version.	
	Built-in 8MP Camera and Mic	
	• Principal/Local Distributor/local Partner should be present in Pakistan for more than	
	5 years and have local warehouse to support next business day replacement in case	
	hardware gets faulty.	
	• Warranty: 1- Year Warranty and Support.	
	Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM	
	must be provided.	
	• Installation and Configuration: Complete Installation, Configuration and Integration	
	will be bidder's responsibility.	
	DVD-W Rom Drive for DVD Writing and Portable HDD (2TB) for Backup	
4	(WD/Seagate/or Equivalent)	2
5	Wi-Fi USB Lan Adapter	
2	 Wi-Fi USB 2.0/3.0 Lan adapter Dual Band support with speeds up to 1.5Gbps and higher. 	200
6	Online UPS 10 KVA	
Ü	 UPS rack mount, 10kVA Online UPS, output PF 1.0, 220V/220V, 2U height with 1 hr 	1
	battery backup.	
	Warranty: 1- Years Warranty.	
	OEM should have presence in Pakistan with their representative. MAF letter should be	
	issued by the OEM representative	
	Principal/Local Distributor/local Partner should be present in Pakistan for more than	
	5 years and have local warehouse to support next business day replacement in case	
	hardware gets faulty.	
	Warranty: 3- Years NBD Warranty and Support.	
	Manufacturer Authorization letter (MAL/MAF) direct from Manufacturer/OEM	
	must be provided.	
	• Installation and Configuration: Complete Installation, Configuration and Integration	
	will be bidder's responsibility.	
	oc oracer o responsionity.	

		Software Description	
Heavy	Duty Printers (-	
	•/		
• ,	Гуре:	A3 Size Laser Multifunctional Printer	
	Speed:	85 – 95 CPM	
•]	Memory:	3-4 GB or higher	
	Storage:	200-300 GB or higher	
•]	Paper Capacity:	3000-5000 sheets or higher	
	First Copy:	2.9 seconds or less	
•]	Processor:	1.3 GHz Dual Core or Higher	
•]	Feeder:	Duplex Document Feeder (for Duplex Scanning)	
•]	Interface:	Hi Speed USB & LAN Network	
• ,	WIFI:	Yes, Built-in	
• '	Toner life:	65,000 copies or higher	
•]	Drum life:	1-3 Million Copies or higher	
• '	Warranty:	One-year standard warranty with Parts	
• ;	Staple Finisher:		
,	Tray Capacity (with	80gsm paper):	
• 1	Upper Tray:		
	A4, A5R, B5:	1,500 sheets	
	Mid Tray:		
	A4, A5R, B5:	250 sheets	
	Lower Tray:		
	A4, B5:	2,500 sheets (Cascade-Load mode)	
	A4, A5R, B5:	1,500 sheets	
	Paper Weight:	52 to 256 gsm	
	Staple Position:	Corner, Double	
	Staple Capacity:	100 chaota (52 to 80 com)	
4	A4, B5:	100 sheets (52 to 80 gsm)	
Heavy	Duty Printers ((B)	
	Гуре:	A3 Laser Multifunctional (Copier, Printer & Scanner)	
	Speed:	100-105 CPM or higher	
	Memory:	3-4 GB or higher	
	Storage:	200-300 GB or higher	
	Paper Capacity:	4000-5000 sheets or higher	
•]	First Copy:	2.7 seconds or less	
•]	Processor:	1.6 GHz Dual Core	
•]	Feeder:	Duplex Document Feeder (for Duplex Scanning)	
•]	Interface:	Hi Speed USB & LAN Network	
• ,	WIFI:	Yes, Built-in	
• ′	Toner life:	65,000 copies or higher	
•]	Drum life:	2-4 Million Copies or higher	
• '	Warranty:	1-year standard warranty with parts	

Heavy duty scanners, OMR/OCR OR ICR (Software Solution):

Optical Mark Recognition (OMR) Software:

Auto alignment of Bubble Sheet

Can generate "Teacher Annotation" of every sheet

Support MISR (Image Mark Sense Recognition). Export cropped images of your desired

Software should not need special OMR printed sheets

Software should not needs special design software to design OMR sheet

Supports virtual scanning (distance/unmanned scanning)

Software should support multiple choice single answer, multiple choices multiple

answers & binary answers?

Software should validate fixed length field i.e. Roll No. CNIC or Cell No

Software should support real time or post processing

Software should generate useful statistical & graphical reports

software should support Export data to many different format

Processes multi-page and double-sided forms

Direct Scan forms with a TWAIN compliant scanner or multifunction device with scanning.

Data is produced instantaneously

Heavy duty scanners, OMR/OCR/ICR (Hardware Solution):

Type: Desktop Sheet-fed Scanner
Speed: 85-90 PPM 170/180 IPM
Scan Size: A4 OR A3 and Legal.

• ADF: 300 sheets of 80 GSM or higher

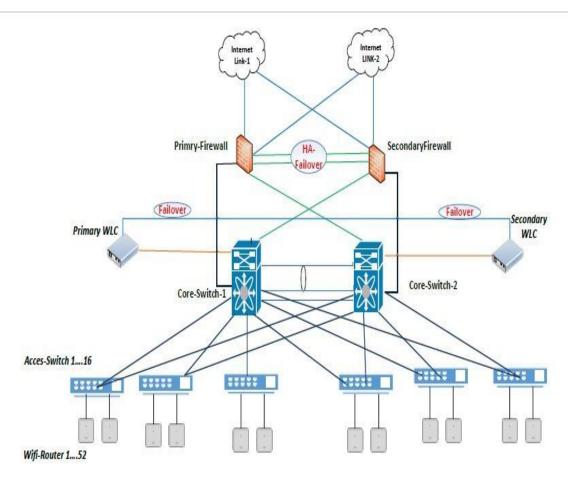
• Scan Element: 3 Line CIS OR CCD OR Dual RGB LED Illumination CIS

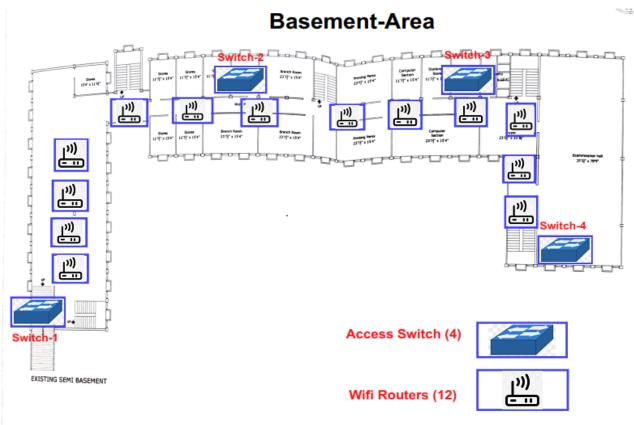
• Scan sides: Simplex/ Duplex

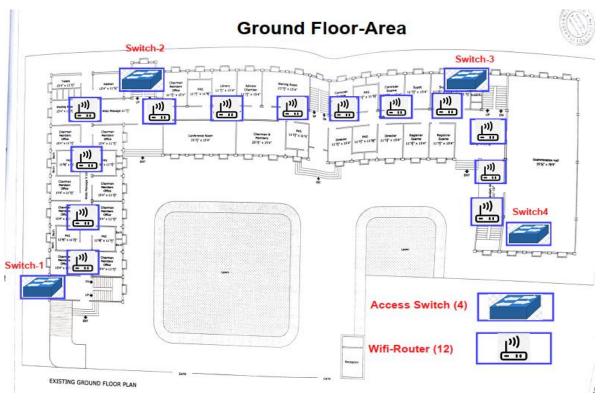
Duty Cycle: 20,000-50,000 scans per day or higher
 Interface: USB 3.1 Gen1 or USB 3.2 Gen 1x1

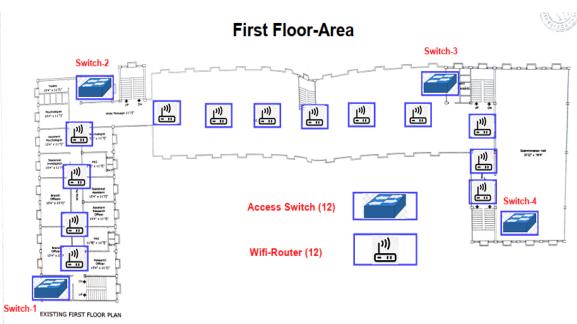
• Warranty: 1 year with parts

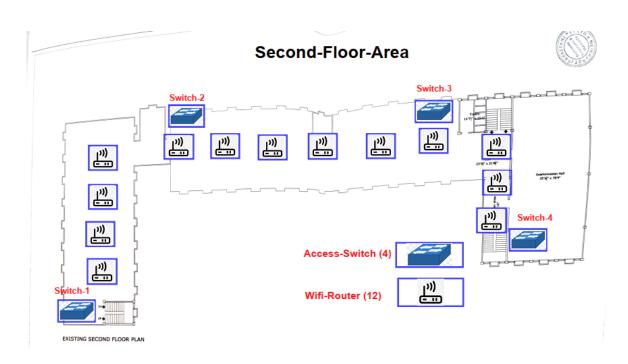
Proposed Network Infrastructure











BID FORM

For	
То	
	Project Director,
	Khyber Pakhtunkhwa Public Service Commission
Sir,	2-Fort road Peshawar Cantt.
SII,	Having examined the bidding documents, the receipt of which is hereby duly
acknowledge	ed, for the above Contract, we, the undersigned, offer to supply, deliver and test in
conformity	with the said bidding documents (Technical and-Financial proposals are attached as
Annexure-B	and Annexure-C respectively) are submitted herewith separately as per your
requirement	
	We undertake, if our Bid is accepted, to complete the supply in accordance with the
delivery tim	e mentioned in this tender documents.
	If our Bid is accepted, we will provide the performance security in the sum
equivalent to	o 10% percent of the Contract Price i.e., Rs for the due performance of
the Contract	as per bid Security Form.
Dated this	day of 2022
Bidder (Sign	+ Seal)
Witness	
Signature	Signature
Name	Name
Title	Title
Address	Address
CNIC	CNIC

PERFORMANCE SECURITY FORM

(Applicable	in case of bank guarantee	e)		
То				
	Project Director, Khyber Pakhtunkhwa 2-Fort road Peshawar		Commission	
WHEREAS	s			(Name of
Contractor)	, hereinafter called "the Co	ontractor" has un	dertaken, in pursuance of	f the bid for the purchase
of items m	entioned in the tender d	locuments dated	2022,	(hereinafter called "the
Contract").				
AND WHE	EREAS we have agreed to	give the Contrac	ctor a Guarantee;	
THEREFO	DRE we hereby affirm t	hat we are Guar	rantor and responsible to	you, on behalf of the
Contractor,	up to a total Sum of Rs.		10% of the total contrac	et value (Amount of the
guarantee),	and we undertake to pay	you, upon your	first written demand dec	laring the Contractor to
be in defaul	t under the Contract, and	without cavil or	argument, any sum or su	ims, within the limits of
10% of the	total contract value (Amo	ount of Guarantee	e) as aforesaid without y	our needing to prove or
to show gro	ound or reasons for your d	emand or the sun	n specified therein.	
This guaran	tee is valid until	of	2022, or the warn	anty period.
Name of G	uarantor			
Signature				
Name				
Title				
Address				
Seal				

SAMPLE CONTRACT AGREEMENT

1.	This c	ontract agreement is made and entered into on, 2022 by and between.		
	(i)	Project Director, Khyber Pakhtunkhwa Public Service Commission hereinafter referred as Purchaser, which expression shall unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns officers delegated to perform functions procurements for and on behalf of its various units of ONE PART.		
AND				
	(ii)			
		having its registered office at hereinafter referred as supplier, which expression shall, unless repugnant to the context of meaning thereof, be deemed to include its successors and permitted assigns of the OTHER PART.		
2.	WHEREAS the Project Director Khyber Pakhtunkhwa Public Service Commission entruste with responsibility of procurement of item / articles during Current Financial Year as pedescription, with specification and quantity, list attached.			
3.	accord	WHEREAS, the Project Director Khyber Pakhtunkhwa Public Service Commission in dance with Procurement of Goods works and Services 2014 adopted by Government of KPK otification No. SO (FR/FD/9-7/2013) dated: 03.02.2014.		
4.	That M/s participated in the response of open tenders floated by Project Director Khyber Pakhtunkhwa Public Service Commission , by submitting technical and financial bids, after necessary evaluation of the item / articles described above; the Procurement Committee opened the financial bids in front of all bidders on			
5.	shown + Fina recom Service	he rates offered by M/s for the item / articles as and attached, were found to be best evaluated bid offered in comparative terms (Technical ancial) with the highest scorer of other bidders participating in the process. Therefore, on the amendation of Procurement Committee, the Project Director Khyber Pakhtunkhwa Public the Commission has accorded approval to place purchase / procurement order with M/s. on and conditions specified below:-		
NOW	THER	EFORE PARTIES HEREBY AGREE AS FOLLOWS		
	(i)	That M/s. shall supply products/items; articles described and specified along with quantity the above within 45days from the date of signing of this agreement.		
	(ii)	That all deliveries shall be made at Khyber Pakhtunkhwa Public Service Commission situated at 2-Fort Road Peshawar Cantt, in the official time on working days only.		
	(iii)	That every article shall be made and finished in all respects to entire satisfaction of Inspection Committee which shall be at liberty to reject any item/ article or part thereof if it is not in accordance with approved sample and specification mentioned in the tender documents submitted by supplier at the time of bidding, and evaluated and approved for this purchase order and such rejection shall be final. The no appeal or review will be permissible against the decision of Inspection Committee.		
	(iv)	That the Project Director Khyber Pakhtunkhwa Public Service Commission shall give written receipt signed by him giving out complete details. Exhibiting the number of items/articles delivered and the number items/articles accepted and rejected, and such receipts		

		specified as accepted and rejected.
	(v)	That all articles rejected shall be taken back and removed by the M/s and nothing shall become due or recoverable by the M/s in respect on account of items/articles so rejected.
	(vi)	In case M/s make default, in the due performance of this agreement/contract in part or full, Project Director Khyber Pakhtunkhwa Public Service Commission shall be at liberty to impose and recover L.D. Charges not exceeding 2% per month thereof The penalty shall be applicable only to the extent of items/ articles supplied late.
	(vii)	Project Director Khyber Pakhtunkhwa Public Service Commission shall have right to assess, demand and recover any damages suffered by Khyber Pakhtunkhwa Public Service Commission Department due to late supply of the items/ articles from the supplier.
	(ix)	Project Director Khyber Pakhtunkhwa Public Service Commission be at liberty to deduct and retain the amount so assessed from the bill that may be or may become due and payable at or after the <i>time</i> of such failure to the M/S.
	(x)	The Project Director Khyber Pakhtunkhwa Public Service Commission shall not be responsible for non-performance of this agreement due to change in law, rules and policy of the government as notified in official gazette from time to time.
	(xi)	That all conditions laid down in the rules framed for procurement by the Government shall apply to transactions made under this contract agreement and both parties shall be bound by it.
6.		contract agreement shall be construed, and the legal relations created herein will be nined in accordance with the laws of Islamic Republic of Pakistan.
7.	-	notice required under this contract agreement shall be in writing and shall be effective when red by the addressee at its given address.
8.	unenf that w on suc	term, conditions, or provision in this Agreement is found to be invalid, unlawful or orceable to any extent, the parties shall Endeavour in good faith to agree to such amendments ill preserve, as far as possible, the intentions expressed in the Agreement. If the parties fail to agree th amendments, such invalid terms, condition or provision will be served from remaining terms, ions and provisions, which will continue to be valid and enforceable to the fullest extent ted by law.
	This a	greement may be amended only in writing signed by both the parties.
10.	IN WI	TNESS WHEREOF, the parties have executed this agreement on the date set forth above.
		Project Director (KP PSC) Government of Khyber Pakhtunkhwa
	iess-1	Witness-2
Signa Name		Signature Name
Title Addr		Title Address
CNIC		Address CNIC

6.

7.

8.

10.

shall be conclusive evidence of the acceptance and rejection of the number of articles