



**Post Pre-Bid Documents for  
Strengthening of IT infrastructure**

**Strengthening of IT infrastructure**

**Under the Higher Education Development in Pakistan (HEDP)  
Project for Improving Universities Financial Autonomy and  
Governance**

**Through Single Stage – Two Envelope Process- Turnkey**

**Pre-Bid Meeting: 16-05-2022**

**Last Date for Submission: 26-05-2022**

**Technical Bid Opening Date: 26-05-2022**

**KHUSHAL KHAN KHATTAK UNIVERSITY, KARAK**  
Address: Opposite Tablighi Markaz, Tehsil, and District Karak

**Websites: [www.kkkuk.edu.pk](http://www.kkkuk.edu.pk)**

**Telephone No. 0927-291036**



# Post Pre-Bid Documents for Strengthening of IT infrastructure

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## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 1. INVITATION TO BID / TENDER NOTICE KHUSHAL KHAN KHATTAK UNIVERSITY, KARAK (KKKUK/ 2022/IT INFRA/002)

#### INVITATION TO BID FOR Strengthening of IT infrastructure

**Under the Higher Education Development in Pakistan (HEDP) Project for Improving Universities Financial Autonomy and Governance.**

1.1 Sealed bids on prescribed Tender Forms are invited from well-reputed firms registered with the tax authorities for Income Tax and Sales Tax purposes with active taxpayer statuses for supply, installation, and commissioning of, active and passive networking items for Khushal Khan Khattak University, Karak. The schedule for bid submission and opening is as follows:

Activity	Date and Time
Issuance date of Bid Documents	30-04-2022
<b>Pre-Bid Meeting</b>	<b>16-05-2022, 12:00PM</b>
Last date for submission of Bid Documents along with Separately Sealed Technical and Financial Proposals	26-05-2022
Opening of Technical Proposals	26-05-2022

1.2 Selection would be made under 'Single Stage – Two Envelope Procedure.

1.3 The complete bidding documents including Contract Conditions and Item Specification can be obtained from Store Section, Khushal Khan Khattak University, Karak during office hours (8:00 AM to 4:00 PM) on any working day (Monday-Friday) at a cost of Rs 1000/- (Tender fee nonrefundable) or can be downloaded from University website: [www.kkkuk.edu.pk](http://www.kkkuk.edu.pk) and KPPRA website.

1.4 The bidders shall clearly and boldly mark the tender name, its description, and date/time of opening at the face of the sealed bid/envelope.

1.5 The Sealed bids, complete in all respects, must reach the office of the Treasurer, Khushal Khan Khattak University, Karak as per the schedule above.

1.6 The financial bid shall invariably be accompanied with separate CDR of earnest Money @ 2% of bid cost (Refundable) drawn in the name of The Treasurer, Khushal Khan Khattak University, Karak. Bids submitted without Earnest Money shall be liable for rejection at the time of bid opening.

1.7 The bidders shall present sample unit/piece, if so required by the Khushal Khan Khattak University, Karak at the time of bid opening.



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1.8 Bids will be opened in the Auditorium, Main Academic Block, Khushal Khan Khattak University, Karak in the presence of the bidders.

1.9 The Khushal Khan Khattak University, Karak reserves the right to reject any or all bids in accordance with KPPPRA rules/rules in vogue.

**Procurement Officer  
Khushal Khan Khattak University, Karak  
Phone: 0927-291027**



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 2. COMPOSITION OF THE DOCUMENT

This document is comprised of the following Parts:

- 2.1 Part-I: Information to Bidders
- 2.2 Part-II: Selection Procedure
- 2.3 Part-III: Conditions of Contract
- 2.4 Part-IV(A): Scope of Work
- 2.5 Part-IV(B): Specification of the Product
- 2.6 Part-V: Bidder Profile
- 2.7 Part-VI: Technical Proposal
- 2.8 Part-VII: Financial Proposal
- 2.9 Part-VII: Terms of Payment
- 2.10 Part-VIII: Resolution of Dispute
- 2.11 Part-IX: *Force Majeure*
- 2.12 Part-X: Liquidated Damages
- 2.13 Part XII: Meet or Exceed Specifications
- 2.14 Part XIII: Clarifications

#### 2.1 Part-I: INFORMATION TO BIDDERS:

Bidders must follow the below requirements while preparing their proposals/bids for submission:

- 2.1.1 For this tender KPPRA rules Single-stage - Two Envelope procedure of open competitive bidding shall be adopted
- 2.1.2 Bids shall comprise of a single envelope containing two separate envelopes, i.e. Technical and Financial Proposals, and clearly marked Technical and Financial proposals on the respective envelopes. Envelopes must also be labeled with the name, address, and contact number of the bidding company/firm and also the Title of the Tender for which the bid is being submitted.
- 2.1.3 Bidders shall submit one copy each of the Technical Proposal and Financial Proposal.
- 2.1.4 Technical proposals shall contain Company profile, locations of offices, company experience in the related field, and project completed as per the format given in Part-VI.
- 2.1.5 Bidders are required to fill and sign all the pages of the bid document including Technical and Financial Proposals.
- 2.1.6 Bidders are required to submit their financial proposal inclusive of all Taxes



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- in Pak Rupees (PKR).
- 2.1.7 No change in price shall be permissible on account of variation in change in Forex rates to any of the components/modules/services during the course of the term.
  - 2.1.8 Bid security is equal to 2% of the bid Cost in the form of a cash deposit receipt (CDR) must accompany the bid as part of the financial proposal as earnest money drawn in favor of Treasurer Khushal Khan Khattak University, Karak. The bid shall not be considered without earnest money or less than the 2% value.
  - 2.1.9 If a bidder has quoted multiple options, in this case, the bidder should submit the earnest money equal to 2% of the highest quoted option.
  - 2.1.10 Bidder must quote for a complete solution as given in Part-IV (A) 'Scope of Work' and Part-IV (B) 'Product Specification'.
  - 2.1.11 University Purchase Committee (UPC) of the University reserves the right to reduce or increase the quantity, accept or reject any/all tenders/ bids as per rules.
  - 2.1.12 After the supply, *KHUSHAL KHAN KHATTAK UNIVERSITY, KARAK* will verify the authenticity of the equipment from its manufacturer. If not verified, the same will be returned to the supplier at his own cost and risk.

**Signature and Stamp of Bidder:** \_\_\_\_\_



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### 2.2 Part-II: SELECTION PROCEDURE:

The objective of this section is to define the steps and procedure which shall be followed during the course of the tender process and till the tender is awarded to the Selected Bidder. Following are the steps/ procedures which will be followed for the Selection of a successful bidder.

- 2.2.1 In the first stage, only Technical proposals will be opened in the presence of bidders / their representatives who choose to attend.
- 2.2.2 Technical evaluation of the firms shall be based on information required in Technical Proposals as mentioned in Part-VI.
- 2.2.3 For qualifying in Technical Proposal, bidders must fulfill all the requirements as laid out in “Product Specifications” as mentioned in Part-IV(B) and “Mandatory Requirements” & “Scoring Requirements/Criteria” as mentioned in Part-VI (Technical Proposal Form).
- 2.2.4 The technically responsive bidders (qualified bidders) who have met the mandatory requirement, product specification requirement in Technical evaluation and obtain 70% marks score will be technically qualified and will be able to participate in financial bid. In the Final Stage, the financial proposals of all the qualified contractors/bidders (who scored 70% marks in technical evaluation) will be opened. The Technical qualified bidder having lowest financial bid will be declared successful.
- 2.2.5
- 2.2.6 If mandatory requirements and product specification requirements are not met by the bidder in Technical Evaluation, the bid will be rejected straight away and no further consideration will be given.
- 2.2.7 Financial Proposal shall be submitted in the form given in Part-VII
- 2.2.8 Financial proposals of bids found technically non-responsive shall be returned unopened.
- 2.2.9 The technically qualified bidders will be evaluated on the basis of the least cost evaluation method in a financial bid and subsequently for the award of contract.
- 2.2.10 After the approval of the tender award, a contract on the stamp paper not less than Rs:100 and shall be executed by Khushal Khan Khattak University Karak with the successful bidders within 15 days.

**Signature and Stamp of Bidder:** \_\_\_\_\_



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### 2.3 Part –III CONDITIONS OF CONTRACT:

- 2.3.1 Any addition, deletion, or modification of any clause of these conditions is not acceptable and may lead to the rejection of the bid. By submitting the bid, the bidder/vendor/firm declares to abide by and be bound by the conditions laid down in the bidding document.
- 2.3.2 The firm/bidder shall clearly provide the proof of their Firm/Partnership/Sole proprietorship Registration with concerned authorities and active income tax and sales tax status with the concerned tax authorities.
- 2.3.3 The tender number/title and date/time of its opening shall be clearly marked on the face of the envelope.
- 2.3.4 Bid for tender shall be submitted in a separate sealed envelope (Technical Bid and Financial Bid).
- 2.3.5 Tenders received after the closing date/time will not be entertained.
- 2.3.6 In case of closed/forced holidays, tender opening time/date will be considered as the next working day.
- 2.3.7 The certificate must be attached showing that the firm has never been blacklisted or debarred by any Government /Autonomous/Semi-Autonomous/ Private organization.
- 2.3.8 Certificate on a stamp paper must be attached showing that the equipment/supplies quoted by the firm are imported through legal channel/(s) and no grey channel/smuggled/refurbished product is quoted. Prior to the submission, Bidder shall bring the quoted equipment in the manufacturer / Principal's information and will also provide a manufacturer authorization letter in favor of Khushal Khan Khattak University, Karak to participate in this bid. In case any product provided by the firm was found to be imported otherwise, the Khushal Khan Khattak University, Karak reserves the right to initiate legal/disciplinary action against the firm, including, but not limited to penalizing/blacklisting the said firm.
- 2.3.9 The successful bidder will have to present the complete import documents of all the quoted items as and when required by the Khushal Khan Khattak University, Karak.
- 2.3.10 The successful bidder will have to present an original note (on the manufacturer's letterhead signed and stamped) regarding the purchase of all the quoted equipment as proof of genuine purchase from the manufacturer(s). Manufacturer Authorization Letter-MAL will be provided with a minimum of 2 contact numbers and email addresses of the approval authority at the manufacturer's level must be provided by the bidder in order to verify the MAL.
- 2.3.11 The material must be according to specifications.
- 2.3.12 The Bids/Offer shall remain valid for 90 days from the date of opening. The





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- bidders shall quote their prices inclusive of all duties / Taxes / Packing / Petrol / Transportation / Installation / Demonstration etc. and all other expenses on delivery to Khushal Khan Khattak University, Karak, KPK, Pakistan.
- 2.3.13 Advance payment is not allowed and shall not be asked for.
- 2.3.14 The sealed bids complete in all respect must reach the office of the Treasurer, Khushal Khan Khattak University, Karak along with earnest money 2% in the shape of CDR to be attached with the financial proposal. No bid will be accepted without earnest money.
- 2.3.15 The sealed tenders, complete in all respects, must reach the office of the Treasurer, Khushal Khan Khattak University, Karak at the time and date notified in the advertisement. Late receipts shall not be entertained, what's ever the reason may be.
- 2.3.16 The tenders shall be opened in accordance with the schedule given in the advertisement. The bidders or their representatives can be present if they so desire.
- 2.3.17 Only those tenders will be entertained which are absolutely clear/unambiguous, unconditional, and legible. Any unavoidable cutting/overwriting must be signed and initial.
- 2.3.18 The offered items must be brand new and free from any defect.
- 2.3.19 The Khushal Khan Khattak University, Karak reserves the right to inspect the working facilities and equipment of the supplier at any stage.
- 2.3.20 The items shall be delivered/installed at the designated locations within 08 weeks (02 months) specified by KKKUK of issuance of the Purchase Order.
- 2.3.21 A penalty of 0.25% of the total cost of the order can be imposed per day for up to 15 days for the delay on the part of the bidder. A penalty of 0.5% of the total cost of the order will be imposed for delay beyond 30 days.
- 2.3.22 In case of failure in the supply, the Khushal Khan Khattak University, Karak Purchase Committee will have the right to cancel the supply order and forfeit the earnest money and blacklist the firm.
- 2.3.23 The Khushal Khan Khattak University, Karak has the right to increase or decrease the number of items according to its requirement/available budget.
- 2.3.24 Payment will be made under KPPRA rules after receipt of the supply and satisfactory inspection report.
- 2.3.25 10% of the total bid amount shall be retained by the Khushal Khan Khattak University, Karak as Security for a Period of One year from the successful bidder. The security amount will be released after One year of supply subject to non-receipt of complaint about the concerned quarter.
- 2.3.26 Bids will be evaluated in line with the Selection Procedure given in 2.2 Part-II.
- 2.3.27 The following documents must be attached with the bid:
- 2.3.27.1 Valid NTN and STRN Certificates;
  - 2.3.27.2 Duly signed and stamped copy of conditions, product specification, and price schedule issued by the Khushal Khan Khattak University, Karak; and
  - 2.3.27.3 Declaration on Stamp Paper that the firm has never been Blacklisted in the past and presently.



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- 2.3.28 The successful bidder shall have to sign a prescribed agreement on the Stamp Paper of Rs. 100/- duly attested from notary public which will be verified by the purchaser.
- 2.3.29 The Khushal Khan Khattak University, Karak Purchase Committee may reject, in part or as a whole, anyone or all the bids in accordance with the rules in vogue.
- 2.3.30 Submission of a soft copy of the bids documents at email [treasurer@kkkuk.edu.pk](mailto:treasurer@kkkuk.edu.pk) is mandatory.

**Signature and Stamp of Bidder:** \_\_\_\_\_



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### 2.4 Part IV (A): SCOPE OF WORK

The Bidder will be responsible for complete deployment of the Part IV-B which includes, supply, installation, commissioning, configuration, testing and knowledge sharing.

#### Provision and Installation: -

- 2.4.1 Supply, installation, configuration, and integration of infrastructure Hardware for the whole project on turnkey basis as per client requirement.
- 2.4.2 Selected Bidder must ensure that the supplied equipment is operational, new, perform properly, and meet RFP's Technical Specification mentioned in Part IV-B Product Specification and it is not going to be the end of life & end of support for the next five years and equipment spare parts remain available with the vendor for the said period.
- 2.4.3 The vendor must comply with all the hardware features given for proposed solution.
- 2.4.4 Complete technical requirements are explained below in the next sections of this document and must be complied by the bidder with respect to product/solution being quoted.
- 2.4.5 Scope of services includes installation, configuration, and integration with the existing solution. The vendor/contractor will be responsible of providing all the hardware/software equipment that may be required to setup the complete system in their respective lots.
- 2.4.6 The bidder is required to provide cost of the technically compliant equipment and solution with 01-year warranty and installation services.
- 2.4.7 The selected bidder shall be responsible for the provisioning of extended warranties and service.
- 2.4.8 Vendor will be responsible for training of two IT officers free of cost. The successful bidder shall provide the necessary trainings prior to product delivery and will give both the participants complete overview of the solution, help them become familiar with its capabilities, and allow them to practice using the solution with day-to-day operations.

#### Notes:

1. Warranty Support and services must be part of the proposal/solution as required in the technical specification of each product.
2. Vendors are required to provide a project implementation plan with schedule time and diagram of proposed solution.
3. All of quoted prices should be mentioned clearly in tabular form.

**Signature and Stamp of Bidder:** \_\_\_\_\_



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### 2.5 Part IV (B): Product Specifications

#### Active Networking Equipment's

It is mandatory to quote all the items on Turn Key Basis

#### SUBJECT: PROPOSAL OF NETWORKING IN MAIN CAMPUS

Item	Description of Requirement	Quantity
	<b>Rack Server (International Branded)</b>	<b>Quantity 1</b>
Chassis	2U Rack Mountable along with rack mounting and arm management kits	
CPU	Two of latest generation Intel Xeon Silver Processor (2.8GHz/8-core/20MB/85W) Processor	
Memory	32 GB (2 x 16GB Registered DIMMs, MHz, 3200 MHz)	
HDD Bays	Support up Supports Upto 24x 2.5" Inch Chassis	
Optical drive Bay	Optical drive bay to install DVD-ROM or DVD-RW	
Hard disk drive	5 x 1.2TB 12G SAS 10K Hot-plug Hard Drives	
Controller	PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/1+0/5/50/6/60	
Networking features	Embedded 1Gb 4-port network adaptor	
Interfaces	Serial - 1 USB 3.0 support With Up to 3 totals: 1 front, 1rear,	
Bus Slots	Six PCI-Express 3.0 slots, at least two x16 and four x8 slots	
Power Supply	750W Power Supply with Power Backplane configurable to support power redundancy	
Fans	Redundant hot-plug system fans	
Embedded system management	Should support monitoring ongoing management, service alerting, reporting and remote management with embedded Gigabit out of band management port Server should support configuring and booting securely with industry standard.	
Security	Power-on password Serial interface control Administrator's password UEFI Should support upto 12 customizable user accounts on out of band management port and SSL encryption Should also supports directory services integration TPM 1.2	
Operating Systems and Virtualization Software Support	Microsoft Windows Server Canonical Ubuntu Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Solaris VMware Citrix XenServer	
Warranty	01 Year Warranty	



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Item	Description of Requirement	Quantity
	<b>Internationally Branded 42U Rack</b>	<b>1</b>
	Branded Server Rack with KVM Switch	
	42U Rack / Server Rack With Cable Manager	
	Airflow Optimization Kit	
	Front Door with Lock	
	Wheels with Lock	
	LCD keyboard mouse touchpad KVM switch sideway	
	Redundant Intelligent PDU <b>16 Ports or 08 Ports 02 No's</b> (PDU)	
	Warranty : 01 year	

### Access Layer Switch

#### 24 Port Switch POE+ (Quantity = 17)

Sno.	Items / Descriptions	
1	Layer 3 Stackable Switch with 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports	
2	1G Rj45 ports - 24	
3	10G SFP+ ports - 4 atleast	
4	802.3at PoE+ Support is mandatory, minimum PoE+ budget should be 370W	
5	Switching Capacity - 120 Gbps, CPU 2 Core ,Flash 512 MB, Memory 512 MB	
6	Vlans – 4000 atleast	
7	Line rate performance on all ports	
8	Mac address table size - 16,000	
9	Support for Broadcast traffic suppression	
10	Support for advance QoS, rate limiting, 802.1p	
11	Support for Radius/TACACS+	
12	Support for 802.1ab – LLDP	
13	Support for sFlow/Netflow	
14	Support for DLDP or equivalent	
15	Support for Dual stack - IPv4 and IPv6	
16	Support for SNMPv1/2/3	
17	Support for 802.3x	
18	Support for STP/RSTP/MSTP	
19	Support for DHCP Server	
20	Support for IPv4 Static IP Routing + RIP + OSPFv2 (Access)	
21	Support for Static IPv6 Routing + RIPng + OSPFv3 (Access)	
22	Support for access control lists	
23	Support for 802.1x - Per user ACL and dynamic VLAN assignment	
24	Support for Multiple IEEE 802.1x users per port	
25	Support for MAC Based authentication	
26	Support for Port Security	
27	Support for Port mirroring	
28	Support for GVRP / MVRP	
29	Support for IP Source guard	
30	Support for dynamic ARP inspection	
31	Support for Voice Vlan	
32	Support for 802.3az	
33	Support for Telnet, SSHv2 and Web GUI	
34	01 years warranty of HW/SW including Power Supply	



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### Distribution Layer Switch 24 Port Switch (Quantity = 2)

S.No	Items / Descriptions
1	Advance Layer 3 switch with 24 x 10 Gig SFP+ ports
2	Switching capacity: 1.60Tbps
3	Vlans – 4000
4	Line rate performance on all ports
5	Mac address table size - 32,000
6	Support for packet storm protection
7	Support for advance QoS, rate limiting, 802.1p, port based rate limiting
8	Support of internal Redundant Power supply
9	Support for Radius/TACACS+
10	Support for 802.1ab – LLDP
11	Support for sFlow/Netflow/
12	Support for DLDLP or equivalent
13	Support for Dual stack - IPv4 and IPv6
14	Support for SNMPv1/2/3
15	Support for 802.3x
16	Support for 802.3az
17	Support for STP/RSTP/MSTP
18	Support for DHCP Server
19	Support for IPv4 Static IP Routing + RIP + OSPFv2 + BGP
20	Support for Static IPv6 Routing + RIPng + OSPFv3
21	Support for access control lists
22	Support for 802.1x - Per user ACL and dynamic VLAN assignment
23	Support for Multiple IEEE 802.1x users per port
24	Support for Concurrent IEEE 802.1X and MAC authentication schemes per port
25	Support for MAC Based authentication
26	Support for Port Security
27	Support for Port mirroring
28	Support for GVRP / MVRP
29	Support for IP Source guard
30	Support for dynamic ARP inspection
31	Support for 802.3az
32	Support for Telnet, SSHv2, Web GUI
33	01 years warranty of HW/SW including Power Supply



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### Core Switch

#### Chassis based Switch (Quantity = 1)

Sno.	Items / Descriptions
1	Modular chassis with redundant supervisor/management modules and-redundant power supplies populated.
2	At least 2xMPU and 2xPower Supplies
3	Redundant Supervisor Engine / Management module support required
4	24-port 10GE SFP+ interface and 24-port GE SFP interface card
5	Forwarding performance - 1400 Mpps
6	Switching capacity: 1.90 Tbps
7	Vlans – 4000
8	Line rate performance on all ports
9	Mac address table size - 64,000
10	Stacking/Clustering of atleast 2 switches using 10G/40G ports
11	Support for SDN
12	Support for MACsec
13	Support for packet storm protection
14	Support for advance QoS, rate limiting, 802.1p, port based rate limiting
15	Support for Radius/TACACS+
16	Support for 802.1ab – LLDP
17	Support for sFlow/Netflow/
18	Support for DLDP or equivalent
19	Support for Dual stack - IPv4 and IPv6
20	Support for SNMPv1/2/3
21	Support for 802.3x
22	Support for 802.3az
23	Support for STP/RSTP/MSTP
24	Support for DHCP Server
25	Support for IPv4 Static IP Routing + RIP + OSPFv2 + BGP
26	Support for Static IPv6 Routing + RIPng + OSPFv3
27	Support for access control lists
28	Support for 802.1x - Per user ACL and dynamic VLAN assignment
29	Support for Multiple IEEE 802.1x users per port
30	Support for Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port
31	Support for MAC Based authentication
32	Support for Port Security
33	Support for Port mirroring
34	Support for GVRP / MVRP
35	Support for IP Source guard
36	Support for dynamic ARP inspection
37	Support for 802.3az
38	Support for Telnet,SSHv2, Web GUI
39	01 years warranty of HW/SW including Power Supply



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### Wireless Controller (Quantity = 1)

Feature	Description
Form factor	1RU, half or full width chassis for installation in standard 19-in. rack
Support for Maximum number of access points	250
Support for Maximum number of clients	4000
Ports	Should have Quad RJ-45 1G Ethernet ports, 2x 10G/Multigigabit fiber, Service Port for out-of-band management, Redundancy port, RJ-45 console port, USB 3.0 port,
Maximum throughput	10Gbps
Maximum WLANs	256
Maximum VLANs	4096
Fixed uplinks	2x 10G/Multigigabit fiber
Automated device provisioning	Should have the ability to automate the process of upgrading software images and installing configuration files on access points when they are being deployed in the network for the first time
API-driven configuration	Should support a wide range of automation features and provide robust open APIs over NETCONF and RESTCONF using YANG data models for external tools, both off-the-shelf and custom built, to automatically provision network resources
Seamless software upgrades and patching	Should provide fixes for critical bugs and security vulnerabilities between regular maintenance releases
Smart operation using WebUI	Should include WebUI tool to enable provisioning of the device, simplifying device deployment and manageability
Wireless Specifications	IEEE 802.11a, 802.11b, 802.11g, 802.11d, WMM/802.11e, 802.11h, 802.11n, 802.11k, 802.11r, 802.11u, 802.11w, 802.11ac Wave1 and Wave2, 802.11ax
Wired, switching, and routing	IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX specification, 1000BASE-T, 1000BASE-SX, 1000-BASE-LH, IEEE 802.1Q VLAN tagging, IEEE 802.1AX Link Aggregation
Encryption	<ul style="list-style-type: none"> <li>● Wired Equivalent Privacy (WEP) RC4 40, 104 and 128 bits (both static and shared keys)</li> <li>● Advanced Encryption Standard (AES): Cipher Block Chaining (CBC), Counter with CBC-MAC (CCM), Counter with Cipher Block Chaining Message Authentication Code Protocol (CCMP)</li> <li>● Data Encryption Standard (DES): DES-CBC, 3DES</li> <li>● Secure Sockets Layer (SSL) and Transport Layer Security (TLS): RC4 128-bit and RSA 1024- and 2048bit</li> <li>● DTLS: AES-CBC</li> <li>● IPsec: DES-CBC, 3DES, AES-CBC</li> </ul>





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Min. operating Temperature:	0°C
Max. operating temperature:	45°C
Humidity range operating:	5% RH to 95% RH, noncondensing
<b>License</b>	<b>Minimum 16 Licenses for Access Points For 03 years subscription</b>
	Warranty: 01 years warranty of HW/SW

### Wireless Access Points (Quantity = 15)

Supported Standards	802.11ax (Wi-Fi 6), 802.11ac, 802.11ax, 802.11n version 2.0
Interfaces	1x 100, 1000 Ethernet (RJ-45) – IEEE 802.3bz, Management console port (RJ-45), USB 2.0
System memory	<ul style="list-style-type: none"> <li>● 1000 MB DRAM</li> <li>● 512 MB Flash</li> </ul>
Available transmit power settings (2.4 & 5 GHz)	2.4GHz: 27dBm (combined power) 5GHz: 27dBm (combined power)
Integrated antenna	2.4GHz: 4dBi 5GHz: 5dBi
Input power	802.3at Power over Ethernet Plus (PoE+), 802.3af PoE , Power injector
Supported Features:	Uplink/downlink OFDMA, MU-MIMO technology, BSS coloring, Target wake time, Bluetooth
Security Standards	802.11i, Wi-Fi Protected Access 3 (WPA3), WPA2, WPA, 802.1X, Advanced Encryption Standard (AES)
Complaint IEEE Standards	802.3, 802.3ab, 802.3af/at, 802.11 a/b/g/n/ac/ax, 802.11h, 802.11d
Extensible Authentication Protocol (EAP) types	EAP-Transport Layer Security (TLS), EAP-Tunneled TLS (TTLS) Protected EAP (PEAP) v0
Indicators	Status LED should indicate boot loader status, association status, operating status, boot loader warnings, and boot loader errors
Min. operating Temperature:	-10°C
Max. operating temperature:	50°C
Humidity range operating:	5% RH to 95% RH
Warranty	01 years warranty of HW/SW



## Post Pre-Bid Documents for Strengthening of IT infrastructure

**10KVA UPS QTY : 02**

S. No	Items	Specification`	Qty
1.	10kVA UPS	<p><b>Output</b></p> <ul style="list-style-type: none"> <li>• Input Power Factor- 0.99</li> <li>• Output Power Factor-0.9</li> <li>• Output power capacity: 9.0 KWatts / 10.0 kVA</li> <li>• Max Configurable Power (Watts) : 10.0 kVA</li> <li>• Nominal Output Voltage: 230V</li> <li>• Output Voltage Distortion :Less than 2%</li> <li>• Output Frequency (sync to mains): 50/60Hz +/- 6 Hz</li> <li>• Other Output Voltages: 220, 240</li> <li>• Load Crest Factor: 3 : 1</li> <li>• Topology: Double Conversion Online</li> <li>• Waveform type: Sine wave</li> <li>• Output Connections</li> </ul> <p>(6) IEC 320 C13 (Battery Backup)            (4) IEC 320 C19 (Battery Backup)            (1) Hard Wire 3-wire (H N + G) (Battery Backup)            (3) IEC Jumpers (Battery Backup)</p> <ul style="list-style-type: none"> <li>• Bypass: Internal Bypass (Automatic and Manual)</li> </ul> <p><b>Input</b></p> <ul style="list-style-type: none"> <li>• Nominal Input Voltage: 230V , 400V 3PH</li> <li>• Input frequency: 40 - 70 Hz (auto sensing)</li> <li>• Input Connections: Hard Wire 3 wire (1PH+N+G), Hard Wire 5-wire (3PH + N + G)</li> <li>• Input voltage range for main operations(L-N): 80 - 280V AC</li> <li>• Input voltage adjustable range for mains operation: 100 - 275 (half load), 173 - 476 (half load) V</li> <li>• Other Input Voltages: 20, 240, 380, 415</li> </ul> <p><b>Batteries &amp; Runtime</b></p>	<b>02</b>



## Post Pre-Bid Documents for Strengthening of IT infrastructure

		<ul style="list-style-type: none"> <li>• Battery type: Maintenance-free sealed Lead-Acid battery with suspended electrolyte: leak-proof</li> <li>• Typical recharge time: 1.5hour(s)</li> <li>• Expected Battery Life (years): 3 - 5</li> <li>• Extendable Run Time: 1</li> <li>• Battery Volt-Amp-Hour Capacity :1805</li> </ul> <p><b>Communications &amp; Management</b></p> <ul style="list-style-type: none"> <li>• Interface Port(s): RJ-45 10/100 Base-T , RJ-45 Serial , Smart-Slot , USB</li> <li>• Control panel: Multi-function LCD status and control console</li> <li>• Audible Alarm: Audible and visible alarms prioritized by severity</li> <li>• Emergency Power Off (EPO): Yes</li> <li>• Available Smart Slot Interface Quantity: 1</li> </ul> <p><b>Surge Protection and Filtering</b></p> <ul style="list-style-type: none"> <li>• Surge energy rating: 480Joules</li> </ul> <p><b>Environmental</b></p> <ul style="list-style-type: none"> <li>• Operating Environment: 0 - 40 °C</li> <li>• Operating Relative Humidity: 0 - 95 %</li> <li>• Operating Elevation: 0-3000meters</li> <li>• Storage Temperature: -40 - 70 °C</li> <li>• Storage Relative Humidity: 0 - 95% non-condensing %</li> <li>• Storage Elevation: 0-15000meters</li> <li>• Audible noise at 1 meter from surface of unit: 55.0dBA</li> <li>• Online thermal dissipation: 1947.0BTU/hr</li> <li>• Protection Class: IP 20</li> </ul> <p><b>Conformance</b></p> <ul style="list-style-type: none"> <li>• Approvals: EN/IEC 62040-1; EN/IEC 62040-2; EN/IEC 62040-3; CE; CB; RoHS, REACH, WEEE,</li> <li>• Standard warranty: 01 years repair or replace (excluding battery) and 2 years for battery</li> </ul>	
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## Post Pre-Bid Documents for Strengthening of IT infrastructure

### Passive Networking

It is mandatory to quote all the items on Turn Key Basis

S#	Item Description	Qty
<b>Service Network Layout Fiber Optic</b>		
1-	Laying of Aerial Fiber Cable Per Meter	As per Actual
2	Splicing per Fiber with OTDR Testing	As per Actual
3	Attachment work for Fiber Inside Building Per Switch Site	As per Actual
4	<b>SFP Transceivers 1G and 10G LX of same brand (switches)</b>	As per Actual
S#	Item Description	Qty
<b>Network Fiber Optics</b>		
1-	24-Core-Fiber Single Mode Best Quality, Armored	As per Actual
2-	ODF-24 Port Rack mounted with SC	As per Actual
3-	ODF-12 Port Rack Mounted with SC	As per Actual
3-	Single Mode Fiber Patch Cord SC-LC [As per Actual]	As per Actual
4-	Pigtails for Single Mode Fiber [As per Actual]	As per Actual
5-	Joint Enclosures 48 Fiber [As per Actual]	As per Actual
6-	GI Pipe 2" Per Meter [As Per Actual]	As per Actual
7-	GI Flexible Pipe 2" Per Meter [As Per Actual]	As per Actual
8-	5M Poles for the Aerial Fiber with Concrete Base As per Actual	As per Actual
S#	Item Description	Qty
<b>Services Network Layout UTP</b>		
1-	UTP Cable and Duct Laying Charges per running Feet [16x25, 25x25, 40x40, 60x60 As per Actual Use	As per Actual
2-	Installation of PVC Flexible Pipe Per Meter [As Per Actual]	As per Actual
3-	Installation of 12U wall mounted Cabinet with <b>06 ports intelligent PDU</b>	As per Actual
4-	Power Cable, 2 Core, 7/44 & 7/29 Pakistan Cable from Server Room to Switches Per [ As Per Actual use] to be used from Main Server Room to All Edge Switches with centralized power Backup of 10KVA.	As per Actual
5-	Circuit breaker, Multisocket Clipsal, Backbox	As per Actual
6-	Termination of UTP Points & Fluke Testing Per Point	As per Actual
7-	Termination of UTP at Patch Panel end (Per Patch Panel)	As per Actual



## Post Pre-Bid Documents for Strengthening of IT infrastructure

8-	Cat6 UTP Patch cord 1 meter/3meter/5meter	As per actual
9-	Surge Protector Extension Boards	As per Actual
10-	Supply and Installation of Cat-6 A/UTP Cable, PVC, (1000 Feet, 305M) Conductor diameter : AWG 24( 0.500.005mm) Insulation diameter : PE 0.88+-0.05mm Number of Pairs: 4 Pairs Conductor type: Solid Bare Copper Sheath Material: PVC Standards Cable system Standard Fire rating IEC 61156-5 ed.2 ISO/IEC11801 ed.2 PVC:IEC60332-1 LSZH: IEC 60332-1 ANSI/TIA 568-C.2 (3M, i-connect/ Uk, Panduit USA)	As per Actual
11-	Patch Panel 24 Port	As per Actual
12-	Patch Panel 48 Port	As per Actual
13-	Shuttered I/O (Double Port) Face plate	As per Actual
14-	Network Tool Kit Box, Complete with all Networking items i.e Cable Tester, Cable Cutters, Tiers, Pliers, punch machines, carrying case, Preferably Branded [ Proskit, Bosh ]	01

### Data Center Equipment and accessories

S.NO	ITEMS	SPECIFICATION	QTY	JUSTIFICATION
1.	Aluminum Ladder	08 Feet folding best Quality	02	
2.	Professional Tool Kit	Material : Carbon Steel 9PCS Hex key 1PCS Hardware box 1PCS PVC insulation tape 6PCS Precision screwdrivers 1PCS Torch 1PCS 8" adjustable wrench 2PCS Screwdrivers 6*100 2PCS Screwdrivers 3*75 1PCS 6"combination pliers 1PCS 6"long nose pliers 1PCS Scissors 1PCS Digital electric tester 1PCS Claw hammer 1PCS Blow	01	
3.	Fire Extinguishers	3KG ABC Fire Extinguisher	02	
4.	Air Condition	Inverter AC 1.5 Ton Cooling Capacity (18000 BTU) Wall Mounted Split Type Air Conditioner Gas: R410 Environment Friendly Refrigerant	01	



## Post Pre-Bid Documents for Strengthening of IT infrastructure

		Low Voltage Start Up: 160V Double Layer Condenser: Golden Fin Energy Efficient: Class A (Up to 60% Electricity Saving) Heat and Cool Function Powerful & Tropical DC Inverter Compressor Tropical T-1		
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### **Note for Bidders:**

- i. The successful bidders would provide Complete Warrantee of the Products/Service as mentioned with the equipment and shall replace the part free of cost in case of any defect found during the warrantee period. The successful bidder shall also provide after sales service.

**Signature and Stamp of the Bidder:** \_\_\_\_\_



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 2.6 Part-V: BIDDER PROFILE:

#### Bidder Profile (To be filled by the Bidder and Submitted with Bid)

1. Name of the Bidder: \_\_\_\_\_
2. Address of the Head Office: \_\_\_\_\_
3. Address of the Peshawar Office: \_\_\_\_\_
4. Year of Establishment: \_\_\_\_\_
5. National Tax Number: \_\_\_\_\_
6. Sales Tax Registration Number: \_\_\_\_\_
7. Contact Person (Name with Designation and Cell No.): \_\_\_\_\_
8. Company/Firm Registration Number \_\_\_\_\_
9. Company Phone Number (Landline): \_\_\_\_\_
10. Company Fax Number: \_\_\_\_\_
11. Company Email: \_\_\_\_\_
12. Company Website: \_\_\_\_\_
13. Authorized Signature: \_\_\_\_\_
14. Name & Designation: \_\_\_\_\_
15. Company Seal: \_\_\_\_\_



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 2.7 Part-VI: TECHNICAL PROPOSAL

Bidders are advised to carefully read the Evaluation Criteria and provide complete information in each category in their Technical Proposal. In-complete or partial information will not be weighed up.

#### A. Mandatory Requirement:

S.No.	Requirement	Response (Yes/No)	Documentary Proof/ Page No.										
1	Brief Company Profile												
2	Active Taxpayer with Federal Board of Revenue												
3	Sales Tax Registration/KPRA												
4	Certificate on a stamp paper that firm is registered and doing the IT business for 05 years.												
5	Technical expertise available (complete list of technical manpower to be provided indicating position, qualification and experience)												
7	Offered Networking Products must fall in current Gartner's report for "Wired and Wireless LAN Access Infrastructure" otherwise solution will be rejected out rightly.												
8	Project Management Organization with Roles & Responsibilities												
9	Undertaking on stamp paper of Rs. 100/- must be attached showing that the firm is presently not blacklisted and has never been blacklisted or debarred by any Government Department in the past. <b>Provided stamp paper will be verified.</b>												
10	Certificate on Rs. 100 stamp paper must be attached showing that the equipment/supplies quoted by the firm are imported through legal channel/(s) and no grey channel/smuggled product is quoted.												
11	Experience in supplies/installation of similar equipment to government/semi-government/ private company/ department (Documentary Proof in form of Work Order/Satisfactory Report must be attached). Detail as per following Performa be attached: <table border="1" style="margin-left: 20px; width: 50%;"> <thead> <tr> <th>S.No.</th> <th>Name of Customer</th> <th>Project Details</th> <th>Amount</th> <th>Year of Job</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	S.No.	Name of Customer	Project Details	Amount	Year of Job							
S.No.	Name of Customer	Project Details	Amount	Year of Job									
12	Verifiable presence with ability to provide rapid/prompt support at KKKUK												
13	The Bidder must submit the <b>genuine</b> Manufacturer Authorization Letter (MAL) for participating in this tender from manufacturer. Bidder will also provide minimum 2 contact numbers and email addresses at manufacturer's level so that MAL can be verified.												
14	Upon request, bidder must arrange onsite visit at the bidder's own cost where similar solution is deployed												
15	Quoted Brands of Active Hardware must be in the business globally for a minimum period of 05 years												
16	Quoted Products must comply all the features as given in the specification of the equipment.												
17	Certificate of CDR @ 2% of bid cost attached with Financial Proposal												

Signature and Stamp of the Bidder: \_\_\_\_\_





## Post Pre-Bid Documents for Strengthening of IT infrastructure

### B. Scoring Requirement/Criteria

At least 70% marks shall be obtained to technically qualified and to participate in the financial bid.

S.No	Criteria List	Description	Max. Marks	Response of Bidder w.r.t Criteria	Documentary Proof/ Page No.
1	Firm's years of service	Minimum 05 Years Mandatory 01 Marks for each year Beyond 05 years at maximum of 10 marks.	10		
2	Supply and Installation of IT/Networking Equipment Completed Projects.	IT/Networking Equipment with completed supply, installation and configuration in the Last 05 Years with completion certificate, will be evaluated as follows: <ul style="list-style-type: none"> <li>• Below Rs. 02 Million = 0 marks</li> <li>• Above Rs.02 Million and below Rs.07 Million = 2 marks</li> <li>• Above 07 and below 10 Million = 3 marks</li> <li>• Above 10 Million = 4 marks</li> </ul>	20		
3	Enterprise Infrastructure/Project Experience In-Hand	IT/Networking Equipment with supply, installation and configuration in-Hand Projects, will be evaluated as follows: <ul style="list-style-type: none"> <li>• Below Rs. 02 Million = 0 marks</li> <li>• Above Rs.02 Million and below Rs.07 Million = 03 marks</li> <li>• Above 07 and below 10 Million = 05 marks</li> </ul>	10		
4	List of certified staff in the specified domain issued by the Principal Vendor	02 marks for each trained certified staff	10		
5	Support Offices within the Country with the capability to provide prompt services at KKKUK	Company having Peshawar office will get 4 points and 2 points each for every support office in other cities	10		



## Post Pre-Bid Documents for Strengthening of IT infrastructure

6	Overall solution and presentation	Please propose your solution keeping the following points in consideration a) Networking Project, b) Project completion timeline details c) Support service plan  (To be awarded by the Committee after presentation)	10		
		Total Marks	70		

Signature and Stamp of the Bidder: \_\_\_\_\_

### 2.8 Part-VII: Financial Proposal Form (to be filled by the bidder)

Name of Bidder: \_\_\_\_\_

1	2	3	4	5	6	7	8	9=4x8
S.N.	Item Name	Description	Total Units	Unit	U. Price w/o GST	GST	U.Price with GST	Cost
<b>Section – I Active Solution</b>								

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

Signature and Stamp of the Bidder: \_\_\_\_\_



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 2.9 Part VIII – TERMS OF PAYMENT

- 2.9.1 No payment shall be made in advance to the Supplier.
- 2.9.2 The supply should be completed in all respect in terms of hardware and accessories / spare parts. Any deficiency in acquisition of desired results at the time of installation and subsequent functioning will be responsibility of the supplying firm/company, without any additional cost. All the supply should be based on Khushal Khan Khattak University, Karak.
- 2.9.3 The supplier will be responsible for installation, testing and commissioning for one-year smooth functioning of the Networking and the procured systems and its parts and also arrange free of cost demonstration/checking for the University staff.
- 2.9.4 Payments shall be made after submission of satisfaction report by Inspection Committee of the University through cross cheque in Pak Rupees.
- 2.9.5 Taxes will be deducted at source as per government rules at the time of payment.

### 2.10 Part IX – RESOLUTION OF DISPUTE

- 2.10.1 In case of any dispute between the two parties of any matter arising out of after signing the contract agreement, the case shall be referred to the Competent Authority of the University whose decision shall be final and binding on both parties.

### 2.11 Part X - *FORCE MAJEURE*

- 2.11.1 The University will not be held responsible for any damages / sabotage and other acts caused due events of *Force Majeure*, acts of Nature, etc. which are considered beyond the direct control.
- 2.11.2 The party unable to carry out its contractual obligations, under circumstances of force majeure, shall immediately inform the other party.
- 2.11.3 A certificate issued by the respective Chamber of Commerce shall be sufficient proof of the existence and duration of such circumstances”.
- 2.11.4 For the avoidance of doubt, Force Majeure shall not include: -
- financial distress nor the inability of either party to make a profit or avoid a financial loss;
  - changes in market prices or conditions; or
  - a party's financial inability to perform its obligations.



## Post Pre-Bid Documents for Strengthening of IT infrastructure

### 2.12 Part XI – LIQUIDATED DAMAGES

- 2.12.1 In case of breach of Warranty support, calculations for payment will be done accordingly and the University Purchase Committee reserves the right to impose a penalty not exceeding 25% of the total amount of the respective item.
- 2.12.2 If the work is not executed according to the satisfaction of the Inspection Committee of the University, then the University reserves the right to reject it altogether or impose a penalty not exceeding 10% of the contract amount.
- 2.12.3 In case of services delay or unsatisfactory product / service delivery, non-complying the terms of the comprehensive warranty services, the Contractor's performance Bank Guarantee / Retention Money will be forfeited.

### 2.13 Part XII – MEET OR EXCEED SPECIFICATIONS

The specifications provided in this RFP are the minimum requirements of the University. The successful bidder must meet or may exceed these specifications to meet the actual requirements of this Project and its successful practical implementation. But in such a case, additionally proposed or altered specifications should clearly be highlighted to enable the University to clearly identify modified specifications.

### 2.14 Part-XIII: CLARIFICATIONS

Queries regarding this RFP shall be submitted in writing to:

**Mr. Ali Abbas**

Network Support Engineer,

IT Section,

Khushal Khan Khattak University,

Karak, Opposite to Tablighi Markaz, Tehsil and District Karak

Phone: +92 (927) 291021

E-mail: [ali.abbas@kkkuk.edu.pk](mailto:ali.abbas@kkkuk.edu.pk)