

# **Invitation to Bid**

**Tender No.3/2016-17**

**Revised in the light of Pre-Bid Meeting**

**Networking of Academic and Admin Blocks**

**Single Stage – Two Envelope Process**

<b>Pre-Bid Meeting/Site Visit:</b>	<b>September 02, 2016 at 10:00 AM in the Office of the Treasurer</b>
<b>Last date for submission of Bid Documents:</b>	<b>September 20, 2016 upto 10:00 AM</b>
<b>Technical Bid opening Date:</b>	<b>September 20, 2016 at 10:30 AM</b>



## **UNIVERSITY OF PESHAWAR**

**UNIVERSITY OF PESHAWAR****Invitation to Bid**

1. Sealed bids on prescribed Tender Forms are invited from well reputed firms registered with Federal Board of Revenue for Income Tax (Active Taxpayers) and Sales Tax purposes for Networking of Academic and Admin Blocks against a Tender Fee of Rs.1000/- as per following schedule:

Activity	Date and Time
Pre-Bid Meeting/Site Visit	02-08-2016 at 10:00 AM
Last date for submission of Bid Documents alongwith Separately Sealed Technical and Financial Proposals	20-09-2016 upto 10:00 AM
Opening of Technical Proposals	20-09-2016 at 10:30 AM

2. Selection would be made under 'Single Stage – Two Envelope Procedure':
3. The Bid is open to all bidders who
- have minimum five (05) years of experience in supplies/installation of similar equipment to government/semi-government/ private company/department.
  - have verifiable presence at Peshawar, with ability to provide rapid/prompt support at University of Peshawar
4. The bidding documents including Contract Conditions and Item Specification can be obtained from Store Purchase Section, University of Peshawar, free of cost, during office hours (8:00 AM to 4:00PM) on any working day (Monday-Friday).
5. The bidders shall clearly and boldly mark the Tender number, its description and date/time of opening at the face of sealed bid/envelope.
6. The Sealed bids, complete in all respects, must reach the office of Treasurer, University of Peshawar as per schedule above.
7. The bid shall invariably be accompanied with separate CDRs of prescribed Tender Fee (No-Refundable) and earnest Money @ 2% of bid cost (Refundable), both drawn in the name of The Treasurer, University of Peshawar.
8. Bids submitted without prescribed Tender fee or Earnest Money shall be liable for rejection at the time of Tender opening. Tender fee and Earnest money shall be submitted separately alongwith each Tender.
9. The bidders shall present sample unit/piece, if so required by the University, at the time of bid opening.
10. Tenders will be opened in the Committee Room No.1, Main Administration Block, University of Peshawar in the presence of the bidders.
11. The University of Peshawar reserves the right to reject any or all bids in accordance with rules in vogue.

**(Dr. Yorid Ahsan Zia)**  
**Treasurer**

**NETWORKING OF ACADEMIC AND ADMIN BLOCKS (TENDER NO.03/2016-17)**  
**[ALL PAGES OF THESE CONDITIONS, PRODUCT SPECIFICATION AND PRICE**  
**SCHEDULE ARE MANDATORY TO BE SIGNED AND STAMPED BY THE BIDDER AND**  
**SUBMITTED ALONGWITH THE BID, FAILING WHICH THE BID MAY BE REJECTED]**

These documents comprise following Parts:

1. Part-I: Information to Bidders
2. Part-II: Selection Procedure
3. Part-III: Conditions of Contract
4. Part-IV(A): Scope of Work
5. Part-IV(B): Specification of the Product
6. Part-V: Bidder Profile
7. Part-VI: Technical Proposal
8. Part-VII: Financial Proposal

**Part-I Information to Bidders:**

Bidders must follow below requirements while preparing their proposals/ bids proposal and submission:

1. For this tender PPRA's Rule number 36(b) 'Single stage - Two Envelope' procedure of open competitive bidding shall be adopted
2. Bids shall comprise of 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 labelled with the name, address and contact number of the bidding company, and also the Title of the Tender for which the bid is being submitted.
3. Bidders shall submit one copy each of Technical Proposal and Financial Proposal.
4. Technical proposals shall contain Company profile, location of offices, company experience in related field and project completed as per the format given in Part-VI.
5. Bidders are required to fill and sign all the pages of the bid document including Technical and Financial Proposals.
6. Bidders are required to submit their financial proposals in Pak Rupees(PKR).
7. No change in price shall be permissible on account of variation in change in Forex rates to any of the components/modules/services.
8. A bank draft equal to 2% of the bid Cost must accompany the bid as part of financial proposal as earnest money drawn in favor of Treasurer University of Peshawar. The bid shall not be considered without earnest money or less than the 2% value.
9. Bidder must quote for complete solution as given in the Part-IV(A) 'Scope of Work' and Part-IV(B) 'Product Specification'. Any item(s) if missed out and not quoted may lead to rejection of bid.

**Part-II Selection Procedure:**

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

1. In first stage, only Technical proposals will be opened in the presence of bidder's representatives who choose to attend.
2. Technical evaluation of the firms shall be based on information required in Technical Proposals as per Part-VI.

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

3. On the basis of technical evaluation, the financial proposal of only technically responsive bidders (qualified bidders), who have met the entire mandatory requirement and secured 60% score in Technical Evaluation, will be opened in the presence of their representatives who choose to attend.
4. For this tender, weightage of Technical and Financial Proposals will be 70% and 30% respectively.
5. For qualifying in Technical Proposal, bidders must fulfil all the requirements as laid out in "Mandatory Requirements" of Technical Proposal and secure at least 70% marks in Technical Evaluation.
6. If any of the mandatory requirements is not met by the bidder or the bidder failed to secure 70% in Technical Evaluation, the bid will be cancelled straightaway and no further consideration will be given.
7. Financial Proposal shall be submitted in the Form given at Part-VII
8. Financial proposals of bids found technically non-responsive shall be returned un-opened.
9. The bid found lowest evaluated bid or highest scorer for the cumulative value of both Technical and Financial Scores will be accepted for the award of tender.
10. After the approval of tender award, a Contract on the stamp paper (the worth of stamp paper shall be determined as per the rules defined) shall be executed by the University of Peshawar with selected bidder within 15 days.

**Part –III        Conditions of Contract:**

1. Any addition, deletion or modification of any clause of these conditions is not acceptable and may lead to rejection of the bid. By submitting the bid, the bidder/vendor declares to abide by and bound by the conditions laid down in the advertisement together with those mentioned hereunder:
2. The firm / bidder shall clearly provide the proof of Registration for GST / NTN on their printed letterheads.
3. Tender number/title and date/time of its opening shall be clearly marked at the face of envelope.
4. Bid for each tender shall be submitted in separate sealed envelope.
5. Tender received after the closing date / time will not be entertained.
6. In case of closed/forced holidays, tender opening time/date will be considered as the next working day.
7. Certificate must be attached showing that the firm has not be blacklisted or debarred by any Government Department.
8. Certificate 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. In case any product provided by the firm was found to be imported otherwise, the University reserves the right to initiate legal/disciplinary action against the firm, including, but not limited to, penalizing/blacklisting the said firm.
9. Successful bidder will have to present the complete import documents of all the quoted items (active) as and when required by the University.
10. Successful bidder will have to present an original note (on manufacturer's letterhead signed and stamped) regarding the purchase of all the quoted equipment with serial number as a proof of genuine purchase from the manufacturer(s) – Manufacturer Authorization Letter
11. The scope of work/product specifications of the items to be supplied is given in Part-IV.
12. The material must be according to specifications.
13. The Bids/Offer shall remain valid for 90 days from the date of opening. The bidders shall quote their prices inclusive of all duties / Taxes / Packing / Petrol / Transportation / Installation / Demonstration etc. and all other expenses on delivery to consignee at Store Purchase Section, University of Peshawar, Jamrod Road, Peshawar.

14. Advance payment is not allowed and shall not be asked for.
15. The sealed bids complete in all respect must reach the office of the Treasurer, University of Peshawar alongwith earnest money 2% in shape of CDR to be attached with the financial proposal. The earnest money will be released after 3 months of supply subject to the satisfactory report. No bid will be accepted with earnest money.
16. The sealed tenders, complete in all respects, must reach the undersigned at the time and date notified in the advertisement. Late receipts shall not be entertained, whatsoever the reason may be.
17. 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.
18. Only those tenders will be entertained which are absolutely clear/unambiguous, unconditional and legible. Any unavoidable cutting/overwriting must be signed and initial.
19. The offered items must be brand new and free from any defect.
20. The University reserves the rights to inspect the working facilities and equipment of the supplier at any stage.
21. The items shall be delivered/installed at the designated locations within 90-days of issuance of the Work Order.
22. A penalty of 0.25% of the total cost of order can be imposed per day upto 10 days for delay on the part of the bidder. A penalty of 0.5% of the total cost of order will be imposed for delay beyond 10 days.
23. In case of failure in the supply, the University Purchase Committee will have the right to cancel the supply order and forfeit the earnest money and black list the firm.
24. The University has the right to increase or decrease the quantum of work according to its requirement/available budget. No additional cost will be paid for such increase or decrease.
25. Payment will be made under university rules after receipt of the supply and satisfactory inspection report.
26. 10% of the total billed amount shall be retained by the University as Security for a Period of Not less than Three Months. The security amount will be released after 3 months of supply subject to non-receipt of complaint for the concerned quarter.
27. Bids will be evaluated in line with the Selection Procedure given in Part-II.
28. The following documents must be attached with the bid:
  - i. Valid NTN and STRN Certificates
  - ii. Duly signed and stamped copy of conditions, product specification and price schedule issued by the University
  - iii. Declaration on Stamp Paper that the firm has never been Black Listed
29. The successful bidder shall have to sign a prescribed agreement on the Stamp Paper of Rs. 100/- duly attested from notary public.
30. The University Purchase Committee may reject, in part or as a whole, any one or all the bids in accordance with the rules in vogue.

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

## **Part IV(A): Scope of Work for Networking of Academic and Admin Blocks**

### **A. Provision, Installation and Testing of Network/Equipment**

#### **1. Provision and installation of network infrastructure**

- i. Optical fiber deployment at Academic Block A and network switches.
- ii. Optical fiber deployment at Academic Block B and network switches.
- iii. Optical fiber deployment at Directorate of Sports with network nodes.
- iv. Optical fiber deployment at Administration Office with network nodes
- v. Optical fiber deployment at Directorate of Works with network nodes.
- vi. Optical fiber deployment at Convocation Hall along with committee room no. 2 University of Peshawar.

#### **2. Provision and installation WLAN network**

- i. Wireless Lan Controller(s)
- ii. Wireless Access Points

#### **3. Provision and Installation of network monitoring and reporting system. The system should be capable of:**

- i. Reporting of statistics via SNMP
- ii. Alarm generation

#### **4. Provision and Installation of NG Firewall**

#### **NOTE: SCOPE OF WORK AT S.NO. 1, 2, 3 AND 4 ABOVE SHALL BE CONFIGURED AND INTEGRATED AS FOLLOWS:**

- i. Supply, installation, configuration and integration of active infrastructure Hardware and/or Software for centralized LAN and wireless LAN with other active solution and monitoring/reporting solution as per client requirement.
- ii. Supply, installation, and integration of passive infrastructure that is required as a back-bone for centralized cable Network LAN with WLAN and monitoring/reporting system to work properly.
- iii. The vendor must comply all the hardware and/or software features given for all active components Switches, controller(s), access points, and monitoring/reporting system, with network architecture and Transportation solution.
- iv. The vendor will be solely responsible for evaluating existing network environment, understanding the requirements, propose a comprehensive LAN and wireless, network solution, supply all required hardware and software, installation/implementation and integration of the solution with the existing infrastructure.
- v. Complete technical requirements are explained further in the document (Compliance Sheets) which is the integral part of this bid and must be complied by the bidder with respect to product/solution being quoted.
- vi. Scope of services includes installation, configuration, and integration with the existing network, maintenance of hardware and/or software (When and as required) on Turn-Key basis. The vendor/contractor will be responsible of providing all the hardware/software equipment that may be required to setup the complete system.

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

5. Supply and installation of network access layer Switches with Optical fiber ports and SFP modules
6. Supply and installation of fully Fiber ports Switches with SFP modules to be installed at Academic Block A and B.
7. Provision and installation of Data Center Core Switch at data center CITS University of Peshawar.
8. Centralized Power cabling for data center, network switches, WLC and Access Points in Academic Block-B.
9. Provision and installation of Server Rack
10. Provision and installation of 10KVA UPS systems with SNMP enable Ethernet card installed. The UPS power will be for Data Center Racks Servers, Switches, WLC and Access Points at Academic block A & B.
11. Provision and Placement of cabinet at user identified locations
12. Provision and Installation of PDU (Power Distribution Unit) in each cabinet
13. Provision and Installation of Duct where required as Cable Tray

**Notes:**

1. Warranty Support and services (including hardware/software/Power Supplies) for a minimum period of 3 years must be part of the proposal/solution.
2. Vendors are required to provide a complete project implementation plan with schedule time and diagram for Optical Fiber, WLC Access points and Electrical installation
14. **All of quoted prices should be mentioned clearly in tabular form with respect to the Academic Blocks/Departments/Directorate/convocation Hall.**

**B. Training**

A technical level detailed training (1-2 weeks) of the IT staff must be carried out by manufacturer or its authorized training partner for required systems/products/features. This will include embedding of 1-5 members of the IT team in the successful vendor implementation teams. Proper mentoring of these embedded members of the IT team will be the responsibility of the successful vendor implementation teams.

1. Training on Network Switching, Network WLC and Access Points etc.
2. VMWare VCP Training from authorized training center(with 2 exam vouchers)
3. Training for NG Firewall with full implementation design

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

**Part IV(B): Product Specification for Networking of Academic and Admin Blocks**

**(All Items at S.No. 1 to 11 given below must meet the Compliance Sheet Requirement – to be filled by the Bidders)**

S.N	Item Name	Description	Acad Block	Sports	DoW	AO	Con. Hall	Total	Unit
<b>Section – I Active Solution (Switches, Firewall, Servers, Power, etc)</b>									
1	Core Switch	Core BASED LAN SWITCH <b>WITH 64(10Gig SFP+), 28 port 10G base T</b> , Ports Modular: Modular Switch with 1.28 Tb/s or above of wire-rate capacity; Redundant power, management and switch fabric; line cards should support line rate, compatible with switches already installed throughout the university campus (Foundry EdgeIron 2402CF); Advanced L3 routing: VRF, Multicast, IPv4 and IPv6; Universal Network Profiles: policy based access, with Dual Power supply.	1	-	-	-	-	1	No.
2	Aggregation Switch	Aggregation Switch with 1/10G SFP Modules: Gigabit Ethernet L3 fixed configuration chassis in a 1U form factor with 22 or 24 100/1000 <b>Base-X SFP</b> ports, 2 10G fixed SFP+ ports; L3 Lite routing: Static Routes, IPv4 and IPv6; Stackable Switch, dual power supply	2	-	-	-	-	2	No.
3	Edge Switch	Aggregation Switch with 1/10G SFP Modules: L2 Gigabit Ethernet <b>LAN switch: 24-port 10/100/1000 BaseT with two 1GigE</b> SFP 802.3at PoE+ support and SFP port versionsL2	40	-	-	-	-	40	No.
4	Edge Switch	L2 Stackable Gigabit Ethernet LAN switch:24-port 10/100/1000BaseT with two 10 GigE SFP+; 802.3at PoE+ support and SFP port versions; Optional backup power	10	-	-	-	-	10	No.
5	WLAN CONTROLLER	WLAN CONTROLLER: Wireless LAN controller, two 10GBase-X (SFP+), supports up to <b>128 APs</b> and 8K clients. Integrated and redundant AC power supply (both populated). Access points, policy implementation and WIPS licenses included in the package.	1	-	-	-	-	1	No.
6	WIRELESS ACCESS POINTS	WIRELESS ACCESS POINTS (Indoor): Wi-Fi Alliance-certified 802.11a/b/g/n/ac with 3x3 MIMO with 3 spatial streams (3x3: 3). Controller managed, 1GE PoE+ access points for hi density environments. Include mount bracket from the same manufacturer for each AP.	20	-	-	-	-	20	No.
7	NMS	NETWORK MONITORING AND REPORTING SYSTEM: Network Management System that can monitor the proposed Network LAN, WLAN and 3rd Party devices. Reporting logging and performance management features	1	-	-	-	-	1	No.
8	Firewall	Gateway Firewall (UTM) for internet security with 3 years bundle	1	-	-	-	-	1	No.
9	42U Rack	42U Standard Server Rack	1	-	-	-	-	1	No.
10	Server	"Rack Mount Server Chassis without OS;(For detail required specifications, refer to attached technical compliance sheet)"	4	-	-	-	-	4	No.
11	UPS	Imported UPS 10-KVA Online with SNMP card For 1-Hour+ Backup and Installation; (For detail required specifications, refer to attached technical compliance sheet)	2	-	-	-	-	2	No.
12	Vmware	Vmware Vsphere <b>6 (8 licenses)</b> with vcenter server	8	-	-	-	-	8	No.



S.N	Item Name	Description	Acad Block	Sports	DoW	AO	Con. Hall	Total	Unit
13	10G SFP	"10G Single Single Mode SFP+; All SFP should be ORIGINAL SPF+ and must not be OEM SFP"	24	-	-	-	-	24	No.
14	1G SFP	"1 G Single/Multimode Mode SFP (110MM, 30SM); All SFP should be ORIGINAL SPF and must not be OEM SFP"	140	-	-	-	-	140	No.
<b>Section – II Passive Solution (Copper and Fiber Networking on unit price basis)</b>									
15	<b>Passive Network Equipment</b>	UTP Cable Cat-06; 23 AWG Brand: Genuine 3M or Schneider Cable	10000	2000	2000	2000	2000	18000	Rft
16		PVC Conduit for surface wiring (dura duct) 3" x 3" including all charges for nail screws etc complete with all respect	2000	-	-	-	-	2000	Rft
17		PVC Conduit for surface wiring (dura duct) 2" including all charges for nail screws etc complete with all respect	1000	-	-	-	-	1000	Rft
18		PVC Conduit for surface wiring (dura duct) 1.5" including all charges for nail screws etc complete with all respect	3000	800	600	1000	1200	6600	Rft
19		Centralized Power Cabling from the Data Centre to the 18 Layer-2 Switches using Dawn/Pakistan Cable 3/29	3000	-	-	-	-	3000	Rft
20		PVC Conduit for surface wiring (dura duct) 1" including all charges for nail screws etc complete with all respect	2000	-	-	-	-	2000	Rft
21		RJ 45 Jack AMP/3M with face plate and 3 Meter Standard Cable compete in all respect	60	10	10	10	15	105	No.
22		15U Wall Mount Local Cabinet with Fans & 4 Power Sockets	1	-	-	-	-	1	No.
23		4U Wall Mount Local Cabinet with Fans & Power Sockets	-	1	-	-	1	2	No.
24		Best Quality 12 Core Single Mode Fiber Cable (10G - OM3 Compliant)	1000	-	-	-	-	1000	Rft
25		Best Quality 12 Core Multi-Mode Fiber Cable (10G - OM3 Compliant)	3000	-	-	-	-	3000	Rft
26		72-Ports MM ODF Rack Mount with all required accessories	4	-	-	-	-	4	No.
27		6-Ports SM ODF Rack Mount with all required accessories	5	-	-	-	-	5	No.
28		12-Ports MM ODF Rack Mount with all required accessories	36	-	-	-	-	36	No.
29		PigTails 1.5-Meter (As per SFP Plane) as per actual	800	-	-	-	-	800	No.
30		Fiber Patch Cord SM 1-Meter (Good Quality)	60	-	-	-	-	60	No.
31		Fiber Patch Cord MM 1-Meter (Good Quality)	120	-	-	-	-	120	No.
32		Fiber Splicing Charges per splice at University of Peshawar	800	-	-	-	-	800	No.
<b>Section – III Digging/Refilling, Commissioning and Training</b>									
33	Digging/Refilling	Digging/Refilling 2 x1 sq ft Soft/hard trenches with provision and laying of Best Quality HDPE Pipe	-	350	350	350	-	1050	Rft
34	Commissioning Services	Installation/Commissioning and Integration of all ICT active solution and services testing with support of 3 years on commissioned services. User acceptance Testing is also included such as : OTDR and Fluke testing	1	-	-	-	-	1	Job
35	Training	Detailed Training for 1-2 Weeks for supplied active equipment of 5 members	1	-	-	-	-	1	Job

1. Network Core Modular Switch with SFP Modules (US or European or Huawei Brands only)					
Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	64 Ports Modular Switch (64 x 10G SFP+ Ports, 28 port 10G base T, with 2 empty slots for future expansion)	M			
2	Console and Ethernet management ports should preferably be RJ45				
3	Front to Rear Cooling or Quoted product specified cooling	M			
4	Redundant Power Supply is mandatory. Also bidder may include necessary redundancy as per quoted solution to ensure max availability	M			
5	Full configuration and reporting using SNMP 1/2/3 to facilitate third party NMS integration				
6	All the routing protocols for IPv4 and IPv6 should be supported				
7	RIP v1 and v2 for IPv4 and RIPng for IPv6				
9	Support for Ethernet VPN, Layer 3 VPN				
10	Support for advanced routing protocols like BGP, ISIS and OSPF				
11	Support for automated assignment of QoS.				
12	Support for Internal IPv4/IPv6 DHCP Server				
13	Support for Ethernet Ring Protection v2 (ERPv2) or equivalent Ring protocol				
14	Support for Network Time Protocol (NTP)				
15	Support for Remote Access : FTP/SCP/SSH/SFTP/Telnet/TFTP				
16	Support for Link Aggregation –Static and LACP (802.3ad)				
17	Support for Multiple Spanning Tree Protocol				
19	Support for SDN (Software Defined Networking)				
20	Support for DHCP Relay				
23	Support for DNS Client				
24	Support for GRE				
25	Support for IP Multicast Routing				
26	Support for IP Multicast Switching (IGMP)				
28	Support for OSPFv2 and OSPFv3				
30	Support for VRRPv2 and VRRPv3				
32	Support for Port Mirroring: Policy Based Mirroring, Remote Port Mirroring				
33	Support for ARP Poisoning Detect , Dynamic ARP inspection				
35	Support for IP DoS Filtering				
36	Switching Capacity 1200 Gb/s at least				
37	Forwarding Rate 950 Mp/s at least / line card should be line rate				
38	Fully managed with CLI and GUI				
39	Switch must have stacking capabilities via stacking solution/ virtual chassis solution				
40	At least 3 years warranty of HW/SW including Power Supply will be a plus point	M			
2. Network Switch with SFP Modules (Aggregation Switch) (US or European or Huawei Brands only) (QTY =2)					
Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	22 or 24 x 10/100/1000 SFP Ports	M			
2	02 x Fixed 10G SFP+ Ports	M			
3	Switch should be loaded with 2 cooling fans				
4	Switch should be loaded with dual power supply	M			
5	Mounting with 19" rack and RJ-45 to DB-9 adapter should be included				
6	User Network Profile (UNP) should be supported or equivalent feature				
7	Support for advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6				

8	Full configuration and reporting using SNMP 1/2/3 to facilitate third party NMS integration				
9	Support for static routing for IPv4 and IPv6(Up to 256 IPv4 and 128 IPv6 static and RIP routes)				
10	Support for RIP v1,v2 and RIPng, OSPF, OSPFv3				
12	Up to 128 IPv4 and 16 IPv6 interfaces				
13	Switching Capacity 200 Gb/s at least				
14	Forwarding Rate 90 Mp/s at least line rate				
15	Fully managed with CLI and GUI				
16	Switch must have stacking(virtual chassis ) capabilities with stacking Module				
17	At least 3 years warranty of HW/SW including Power Supply	M			
<b>3. Network Switch with SFP Modules(Edge Switch 1) (US or European or Huawei Brands only) (QTY =40)</b>					
<b>Sno</b>	<b>Items / Descriptions</b>	<b>FC</b>	<b>PC</b>	<b>NC</b>	<b>Bidder's Quoted Feature</b>
1	24 x 10/100/1000 PoE+ Ports	M			
2	02 x Fixed 1G SFP Ports	M			
3	PoE+ Power Budget should be at least 360W or more				
4	All ports should be 802.3at compliant (PoE+)				
5	Support for advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6				
6	Full configuration and reporting using SNMP 1/2/3 to facilitate third party NMS integration				
7	Support for static routing for IPv4,				
8	Support for RIP v1,v2				
9	Switching Capacity 52 Gb/s at least				
10	Forwarding Rate 40 Mp/s at least				
11	Fully managed with CLI and GUI				
12	At least 3 years warranty of HW/SW including Power Supply	M			
<b>4. Network Switch with SFP Modules(Edge Switch 2) (US or European or Huawei Brands only) (QTY =10)</b>					
<b>Sno</b>	<b>Items / Descriptions</b>	<b>FC</b>	<b>PC</b>	<b>NC</b>	<b>Bidder's Quoted Feature</b>
1	24 x 10/100/1000 PoE+ Ports	M			
2	02 x Fixed 10G SFP+ Ports	M			
3	PoE+ Power Budget should be at least 360W or more				
5	All ports should be 802.3at compliant (PoE+)				
6	User Network Profile (UNP) should be supported				
7	Support for advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6				
8	Full configuration and reporting using SNMP 1/2/3 to facilitate third party NMS integration				
9	Support for static routing for IPv4				
10	Support for RIP v1,v2 / ERP V2 or equivalent Ring protocol				
13	Switching Capacity 120 Gb/s at least				
14	Forwarding Rate 90 Mp/s at least				
15	Fully managed with CLI and GUI				
16	Switch must have stacking /virtaul chassis capabilities	M			
17	At least 3 years warranty of HW/SW including with dual power supply	M			
<b>5. WLAN CONTROLLER</b>					
<b>S.N</b>	<b>Description</b>	<b>FC</b>	<b>PC</b>	<b>NC</b>	<b>Bidder's</b>

					Quoted Feature
1	Optimized for 802.11 a/b/g/n/ac				
2	Support minimum 128 access points (include 64 license bundles for access points and end user policy implementation)	M			
3	Support 2 x 10GBASE-X (SFP+) ports	M			
4	Support 2 x dual-media ports (1000BASE-X or 10/100/1000BASE-T)				
5	Redundant Power Supply (populated)	M			
6	LCD panel and navigation buttons				
7	Minimum 8,000 concurrent devices support				
8	Minimum 8 Gbps firewall throughput				
9	Minimum 4 Gbps encrypted throughput (3DES, AES-CBC)				
10	Integrated ICSA certified firewall				
11	Next generation policy implementation firewall feature (include licenses to achieve this if its not already built-in)				
12	Supports for IPv4 and IPv6 for all services				
13	WIDS and WIPS capabilities (include licenses to achieve this if its not already built-in)	M			
14	Support for 802.1X authentication. RADIUS, LDAP, TACACS, WINDOWS server integration support.				
15	Support for guest web authentication via internal or external database/server				
16	QoS Prioritization, Bandwidth control, Traffic shaping and Application-aware QoS capabilities				
17	Role based access control				
18	Must support Layer-3 mobility feature for seamless AP-to-AP client connectivity				
19	Walled garden support				
20	Intelligent adaptive radio management				
21	Support for VPN services, internal DHCP, creating VLANs				
22	Must be with one time licensing (no recurring cost)				
23	At least 3 years support and 3 years replacement warranty	M			

## 6. WIRELESS ACCESS POINTS (Indoor)

Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	Wi-Fi Alliance-certified 802.11a/b/g/n/ac	M			
2	Support for dual band and dual radio (concurrent)				
3	3x3 MIMO with 3 spatial streams (3x3: 3)				
4	Minimum 1.70 Gbps aggregated wireless data rate	M			
5	High-Gain (5 dBi on 2.4GHz and 5 dBi on 5GHz) Dual-band integrated Omni-Directional antennas	M			
6	Autonomous and Controller managed mode of operation				
7	Support to eliminate sticky client behavior while roaming				
8	One 10/100/1000BASE-T Ethernet network interface (RJ-45) Auto-sensing link speed and MDI/MDX. 802.3at and 802.3az compliant	M			
9	Serial console interface (RJ-45 or USB)				
10	Visual indicators (LEDs) for Power/system status, Ethernet link status (1x; ENET0) and Radio status (RAD0, RAD1)				
11	Ceiling/Wall mountable				
12	Advanced cellular coexistence (ACC) feature				
13	Minimum transmit power +23dBm on 2.4 GHz and +23dBm on 5GHz				
14	Supported modulation types BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM for 802.11a/b/g/n/ac				
15	At least 3 Years warranty	M			

7. NETWORK MONITORING AND REPORTING SYSTEM (US or European or Huawei Brands only)					
Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	Separate software based system installable using VM (include licenses)	M			
2	Real time monitoring of wireless and wired devices i.e. Client, APs, Controller, Switches, Routers, Firewalls, IPS/IDS, Servers.				
3	Automated device discovery using SNMP, HTTP and CDP				
4	Support for client location history, incident tracking, root-cause analysis, email alerts upon various conditions				
5	Configuration, firmware distribution and policy management & audit				
7	Rogue Access Point & Wireless Intrusion Detection and Containment				
8	Standard, custom and exportable (PDF, HTML, CSV) reporting for daily, weekly, monthly and yearly network usage	M			
9	Display distribution of clients by OS, device type, WLAN vendor and SSID				
10	One time licensing (no recurring cost)				
11	System must be included with 110 IP NEs licensing	M			
12	3 years onsite/remote support and warranty	M			
8. Network Firewall with UTM (Qty 01) (US or European Brands only)					
Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	8 GE SFP port/Interfaces	M			
2	GE Rj 45 interface 10/100/1000 Interfaces (RJ-45) qty =8	M			
5	Onboard Storage i.e. 120 GB or greater	M			
6	Firewall should support redundant power supply	M			
7	IPv4 IPV6 Firewall Throughput (1518 / 512 / 64 byte, UDP) i.e 16 / 16 / 16 Gbps				
8	Concurrent Sessions (TCP) i.e. 6 Million or greater				
9	Firewall Throughput (Packets Per Second) i.e. 24Mpps or greater				
10	Firewall Policies i.e. 10,000				
11	IPsec VPN Throughput (512 byte packets) i.e. 14 Gbps				
12	SSL-VPN Throughput i.e. 400 Mbps				
13	Antivirus Throughput i.e. 1.7 / 3.4 Gbps				
14	IPS Throughput i.e. 4.7 Gbps				
15	Fully managed with CLI and GUI				
16	High Availability Configurations (Active-Active, Active-Passive, Clustering)	M			
17	Content filtering				
18	Operating Temperature i.e. 32–104°F (0–40°C)				
19	Certifications(Firewall, IPSec, IPS, Antivirus, SSL-VPN)				
20	Form Factor (1RU)				
21	Stateful Firewall, Intrusion Prevention, Application Control User/Device Identity & Authentication, Anti-malware, Sandboxing, Web Filtering, IP Reputation, SSL Inspection, IPSEC/SSL VPN, Networking (LAN, WAN, Wi-Fi), Management & Reporting.				
22	Including all Accessories/Spares i.e. Transceiver Modules				

23	3 years Support Bundle, onsite installation, configuration, Detailed training(3-5 IT Staff) (Bundle Certificate from manufacturer in the name of end user)	M			
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#### 9. 42U Universal Rack with KVM Console Qty = 1

S.No	Accessories	FC	PC	NC	Bidder's Quoted Feature
1	Front and Back Door : 1 No.	M			
2	40A High Voltage Modular PDU with mounting kit : 1 No.	M			
3	2,7X C-13 Stk Intl Modular PDU with mounting kit : 2 No.	M			
4	10K 220V Graphite Roof Mount Fan Kit : 1 No.				
5	Rack Grounding Kit : 1 No.	M			
6	Side panel Kit : 1 No.	M			
7	On Site Installation	M			
8	Warranty three year warranty				
9	KVM switch with console for 8 servers along with all accessories Warranty three year warranty	M			

#### 10. Rack Mount Servers (04 Qty)

Sno	Items / Descriptions	FC	PC	NC	Bidder's Quoted Feature
1	Rack Mount Server 2U	M			
2	2 x Intel® Xeon® E5-2697 v4 2.3GHz, 45M Cache, 18C	M			
3	4x 16GB RDIMM Memory	M			
4	12G RAID Controller with at least 1GB or higher battery backed write cache				
5	08 x 2.5" 1.2TB hot-plug 10K SAS HDD expandable up to 24HDD				
6	1 x 1Gb Quad Ports Network Card				
7	DVD+/-RW ROM, SATA, Internal (01 Qty)				
8	Ready Rails Sliding Rails With Cable Management Arm (01 Qty)				
9	Dual, Hot-plug, Redundant Power Supply (1+1), 750W (01 Qty)				
10	USB Optical Mouse (01 Qty)				
11	US English (QWERTY) Quiet Key USB Keyboard Black (01 Qty) Three year warranty.				

#### 11. Technical Specification of Online 10KVA UPS: (Imported European/US/Japanese Brand Only)

Capacity		(10KVA/8000,192 Vdc)
Input	Voltage	120-276Vac
	Frequency (HZ)	50/60± 6% (50/60Hz settings)
	Power Factor	>0.98 at full load
Output	Power Factor	0.8
	Voltage (Vac)	220/230/240±2%
	Frequency (HZ)	50/60±0.5% (Battery mode)
	Waveform	Pure sine wave THD <3% (Linear load )
	Overload	105%-125% for 10 Min, 125%-150% for 1 Min, above 150% for 1Sec
	Transfer Time	0
Battery	Battery Type	External Dry Batteries for 1-Hour Backup at 65/70% load of UPS 10-KVA
	Charger Current (A) Max	6
Others	Communication Interface	RS 232 with built-in SNMP card

	Display	LCD indicated the status of UPS
	Alarm	Low battery, abnormal AC input, UPS failure
	Protection	Low battery, overload, short-circuit and over temperature
	Noise(dB)	< 45 up to 3kva, for 6kva <60
	Working Temperature	0-40 °C
	Relative Humidity	0-95%, No condensation
<b>Brand</b>		Imported European/US/Japanese Only

**Note for Bidders:**

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

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

**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 Phone Number (Landline): \_\_\_\_\_
9. Company Fax Number: \_\_\_\_\_
10. Company Email: \_\_\_\_\_
11. Company Website: \_\_\_\_\_
12. Authorized Signature: \_\_\_\_\_
13. Name & Designation: \_\_\_\_\_
14. Company Seal: \_\_\_\_\_



**Part-VI: Technical Proposal**

**NOTE:** 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												
4	A Certificate from the Principal to the effect that the bidder is technically competent to successfully complete the project and in case of failure the Principal will make good the work												
5	Technical expertise available (complete list of technical manpower to be provided indicating position, qualification and experience)												
6	Project Management Organization with Roles & Responsibilities												
7	Certificate must be attached showing that the firm has not be blacklisted or debarred by any Government Department.												
8	Certificate 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.												
9	At least 5 Years' 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 proforma be attached: <table><tr><td>S.No.</td><td>Name of Customer</td><td>Number of Network Points/Cameras</td><td>Amount</td><td>Year of Job</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	S.No.	Name of Customer	Number of Network Points/Cameras	Amount	Year of Job							
S.No.	Name of Customer	Number of Network Points/Cameras	Amount	Year of Job									
10	Verifiable presence at Peshawar with ability to provide rapid/prompt support at University of Peshawar												
11	The Bidder must submit Manufacturer Authorization Letter/Certificate for participating in this tender from manufacturer of Active Hardware and Software												
12	Bidder must be ISO 9001/2008 certified												
13	Upon request, bidder must arrange onsite visit where cable network and wireless LAN solution is deployed												
14	Quoted Brands of Active Hardware and Software must be in the business globally for a minimum period of 10 years												
15	Quoted Products must meet all the Mandatory Compliance as given in the Compliance Sheet												
16	CDR @ 2% of bid cost attached with Financial Proposal												

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

**B. Non-Mandatory/Scoring Requirement/Criteria**

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 5 Years (Mandatory); 1 Mark for each year beyond 5 years	10		
2	Value of Similar IT Network Projects	Similar IT Network projects in last five years. Each project will be vetted as follows: Below 10 Mn. PKR = 0 marks Above 10 and below 15 Mn = 2 marks Above 15 and below 20 Mn = 3 marks Above 20 Mn = 4 marks	20		
3	Hardware Experience	Authorized reseller/distributor of quoted hardware. Please attach certificates maximum five (5) reseller certificates. Each reseller certificate carries 2 marks	10		
4	List of certified staff in the specified domain issued by the Principal Vendor	2 points each for every member, Maximum score 10	10		
5	Support Offices within the Country having helpdesk support and UAN/toll free number	Company having Peshawar office will get 4 points and 2 points each for every support office Maximum score 10	10		
6	Overall solution and presentation	Please propose your solution keeping the following points in consideration a) Network, Firewall, WLAN controllers design and deployment b) Project completion timeline details c) NMS Project deployment detail with different vendor switches. d) Support service plan  (To be awarded by the Committee after presentation)	10		
	Total Marks		70		

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

**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 (Switches, Firewall, Servers, Power, etc)</b>								
1	Core Switch	Core BASED LAN SWITCH WITH 64(10Gig SFP+), 28 port 10G base T. Ports Modular: Modular Switch with 1.28 Tb/s or above of wire-rate capacity; Redundant power, management and switch fabric; line cards should support line rate, compatible with switches already installed throughout the university campus (Foundry EdgeIron 2402CF); Advanced L3 routing: VRF, Multicast, IPv4 and IPv6; Universal Network Profiles: policy based access, with Dual Power supply.	1	No.				
2	Aggregation Switch	Aggregation Switch with 1/10G SFP Modules: Gigabit Ethernet L3 fixed configuration chassis in a 1U form factor with 22 or 24 100/1000 Base-X SFP ports, 2 10G fixed SFP+ ports; L3 Lite routing: Static Routes, IPv4 and IPv6; Stackable Switch, dual power supply Aggregation Switch with 1/10G SFP Modules:	2	No.				
3	Edge Switch	L2 Gigabit Ethernet LAN switch: 24-port 10/100/1000 BaseT with two 1GigE SFP 802.3at PoE+ support and SFP port versionsL2	40	No.				
4	Edge Switch	L2 Stackable Gigabit Ethernet LAN switch:24-port 10/100/1000BaseT with two 10 GigE SFP+; 802.3at PoE+ support and SFP port versions; Optional backup power	10	No.				
5	WLAN CONTROLLER	WLAN CONTROLLER: Wireless LAN controller, two 10GBase-X (SFP+), supports up to 128 APs and 8K clients. Integrated and redundant AC power supply (both populated). Access points, policy implementation and WIPS licenses included in the package.	1	No.				

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
6	WIRELESS ACCESS POINTS	WIRELESS ACCESS POINTS (Indoor): Wi-Fi Alliance-certified 802.11a/b/g/n/ac with 3x3 MIMO with 3 spatial streams (3x3: 3). Controller managed, 1GE PoE+ access points for hi density environments. Include mount bracket from the same manufacturer for each AP.	20	No.				
7	NMS	NETWORK MONITORING AND REPORTING SYSTEM: Network Management System that can monitor the proposed Network LAN, WLAN and 3rd Party devices. Reporting logging and performance management features	1	No.				
8	Firewall	Gateway Firewall (UTM) for internet security with 3 years bundle	1	No.				
9	42U Rack	42U Standard Server Rack	1	No.				
10	Server	"Rack Mount Server Chassis without OS;(For detail required specifications, refer to attached technical compliance sheet)"	2	No.				
11	UPS	Imported UPS 10-KVA Online with SNMP card For 1-Hour+ Backup and Installation; (For detail required specifications, refer to attached technical compliance sheet)	2	No.				
12	Vmware	Vmware Vsphere 6 (8 licenses) with vcenter server	4	No.				
13	10G SFP	"10G Single Single Mode SFP+; All SFP should be ORIGINAL SPF+ and must not be OEM SFP"	24	No.				
14	1G SFP	"1 G Single/Multimode Mode SFP+ (110MM, 30SM); All SFP should be ORIGINAL SPF+ and must not be OEM SFP"	140	No.				
<b>Section – II Passive Solution (Copper and Fiber Networking on unit price basis)</b>								
15	<b>Passive Network Equipment</b>	UTP Cable Cat-06; Brand: Genuine 3M or Schneider Cable	18000	Rft				
16		PVC Conduit for surface wiring (dura duct) 3" x 3" including all charges for nail screws etc complete with all respect	2000	Rft				
17		PVC Conduit for surface wiring (dura duct) 2" including all charges for nail screws etc complete with all respect	1000	Rft				
18		PVC Conduit for surface wiring (dura duct) 1.5" including all charges for nail screws etc complete with all respect	6600	Rft				

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
19		Centralized Power Cabling from the Data Centre to the 18 Layer-2 Switches using Dawn/Pakistan Cable 3/29	3000	Rft				
20		PVC Conduit for surface wiring (dura duct) 1" including all charges for nail screws etc complete with all respect	2000	Rft				
21		RJ 45 Jack AMP/3M with face plate and 3 Meter Standard Cable compete in all respect	105	No.				
22		15U Wall Mount Local Cabinet with Fans & 4 Power Sockets	1	No.				
23		4U Wall Mount Local Cabinet with Fans & Power Sockets	2	No.				
24		Best Quality 12 Core Single Mode Fiber Cable (10G OM3 Compliant)	1000	-	-			
25		Best Quality 12 Core Multi-Mode Fiber Cable (10G OM3 Compliant)	3000	-	-			
26		72-Ports MM ODF Rack Mount with all required accessories	4	-	-			
27		6-Ports SM ODF Rack Mount with all required accessories	5	-	-			
28		12-Ports MM ODF Rack Mount with all required accessories	36	-	-			
29		PigTails 1.5-Meter (As per SFP Plane) as per actual	800	-	-			
30		Fiber Patch Cord SM 1-Meter (Good Quality)	60	No.				
31		Fiber Patch Cord MM 1-Meter (Good Quality)	120	No.				
32		Fiber Splicing Charges per splice at University of Peshawar	800	No.				
		Section – III Digging/Refilling, Commissioning and Training						
33	Digging/Refilling	Digging/Refilling 2 x1 sq ft Soft/hard trenches with provision and laying of Best Quality HDPE Pipe	1050	Rft				
34	Commissioning Services	Installation/Commissioning and Integration of all ICT active solution and services testing with support of 1 year on commissioned services User acceptance Testing is also included such as : OTDR and Fluke testing .	1	Job				
35	Training	Detailed Training for 1-2 Weeks for supplied active equipment of 5 members	1	Job				
	Total Cost (In Pak Rupees)		0					

	<b>Note: CDR amounting to 2% of Total Bid Cost to be attached</b>						
	<b>CDR No.</b> _____						
	<b>Amount:</b> _____						
	<b>Bank:</b> _____						

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

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