QUAID-E-AWAM UNIVERSITY OF
ENGINEERING, SCIENCE & TECHNOLOGY, NAWABSHAH-SINDH

Request for Proposal (RFP)
For

Supply and installation of Core switch, Server, storage, IP telephony system, Wi-Fi, Network Security Devices, Up-gradation of University Exchange, Network, Data Centre Internal Work and Diesel Generator

Last Date for Submission: **20-09-2016 at 12:30 p.m.**

Bid Opening Date: **20-09-2016 at   1:00 p.m.**

Website: www.quest.edu.pk

Tender Fee: Rs.5000/-

DEFINITIONS

- **QUEST:**   Quaid-e-Awam University of Engineering Science & Technology.
- **SLA:**   Service Level Agreement.
- **RFP:**   Request for Proposals.
- **BOQ:**   Bill of Quantity
- **Total Bid Value:** Cost of as per BOQ.
- **Bidder:**   Firms who have submitted the proposals.
- **Selected Bidder:** Firms selected for the award of tender.
- **First Party:**   QUEST Nawabshah
- **Second Party:**   Selected Bidder**.**

TERMS AND CONDITIONS

1. Introduction

Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, is established with the aim to provide quality and state-of-art education to the students in the field of Engineering, Science and Technology, and to produce professional graduates to cater the requirements of the market for socio-economic development of the country. The Network Operation Centre (NOC) was established in 2004 to provide and facilitate the faculty members, students and staff members for the usage of Internet facilities with voice, data and video conferencing services for their academic and research activities. Now, the QUEST intends to establish ICT Data Centre, for upgrading the existing infrastructure to cater the growing needs of un-interrupted services which includes Internet, Data, Voice, Storage and Web-based services for the faculty members, administration and students. The QUEST ICT Data Centre is to be established with latest equipment and services to meet the user's requirements at a standard level. The funds for proposed work have been received from Higher Education Commission, Islamabad.

2. GENERAL Terms & Condition

Companies are requested to read carefully the following terms and conditions and sign the Tender Form in token of having understood and accepted the same in all respects. They are also requested to submit the bid/bids complete in all respect. Tender without 2% earnest money will be out-rightly rejected.

1. The bid documents should be submitted in two separate envelops i.e. Single Stage Two Envelops procedure (i. Technical ii. Financial)
2. Company should quote their rates against each item sequence wise on the official format of tender document based on Invoice/Quotation.
3. Bidder can quote separately as per Section A, B ,C and D, mentioned in the document.
4. Section A, B & C has separate selection criteria (technical and financial).
5. Bidder has to provide prices as per BOQ & total with GST.
6. The successful bidders may be asked to provide imported equipment through LC on C&F basis.

7. Company should produce call deposit / Bid Security 2% of the offered bid in the shape of Pay Order /Bank Draft in the name of QUEST Nawabshah, if failure, the tender document will not be entertained.

8. Details of Bid Security Submitted:

   Value: _____

   Dated: _____

   Bank: _____

9. Company must be Registered with Income Tax Department (Valid NTN Certificate)

10. Company must be Registered with Sales Tax Department (Valid GST Certificate)

11. Company must have supplied and installed similar type of Equipment/projects in country (at-least 5 projects)

12. Company must have 5 years + experience of similar projects.

13. Conditional / incomplete tenders will not be accepted.

14. Telephonic / telexed / faxed / telegraphic quotation will not be entertained.

15. The company must provide warranty duration of at least 6 months up-to one year in their quotations/bids if any.

16. In case of non-conformity with the desired specification, the item shall be replaced by the Supplier free of cost.

17. The bid prices must be valid for at least 90 days from the date of Tender opening.

18. All Government Taxes are applicable on bills.

19. Any bids received after the prescribed date & time for submission of bids shall be returned un-opened to the Company.

20. QUEST (Tender Committee) reserves the right to reduce or increase the quantity and accept or reject all or any bid and to stop the bidding process and reject all bids under Sindh Public Procurement Rules 2010 (Amended 2013).

21. Where possible the procuring entity shall ask for a warranty from the supplier for replacement or repair of the procured good falling in the warranty period.

22. The successful company must provide indemnity bond for good quality of items. If the desired items are not found up to the mark, the Company should replace it at his own cost within the six months / one year warranty period.

23. No cutting/corrections or interpolation will be allowed in the BOQ's.

24. Delivery of equipment/material will be effective only after successful TIR (Technical Inspection Report).

25. Company providing equipment/material will be responsible for TIR with QUEST, Nawabshah staff.

26. Company will send Technical Staff for TIR (Technical Inspection Report).

27. Equipment will be unpacked by Company representative.

28. Company will make sure that all documents/manuals/Software/CDs (if applicable) are included in BOX

29. Delivery will not be acceptable till all above conditions are met.

30. Vendor should meet eligible marks in VEC (Vendor Eligibility Criteria)

31. If there is a discrepancy between unit price and total price in the submitted bid which is obtained by multiplying the unit price and quantity, the unit price shall prevail and total price shall be corrected. If there is a discrepancy between the words and figures, the amount in words shall prevail. If there is a mistake in addition/ totaling, that shall be corrected. If the bidder does not accept the corrected amount of bid, his bid shall be rejected and his bid security forfeited

32. For this tender all updates/changes shall be communicated through email and also be posted on QUEST website

33. 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 Vice chancellor whose decision shall be final and binding on both parties.

34. Number of equipment and its parts may be increased or decreased as per University requirement based on technical Committee recommendation

3. Document required for ELIGIBILITY:

1. Bio-Data of Engineering and Technical Staff working with the Firm

2. Documentary Evidence of Similar Works executed/Works in Progress and Certificate of Satisfactory Completion of Works by the Employers

3. List of Works in progress indicating Cost of Each Work and Copy of Letter, awarding the Work

4. List of Equipment available for After Sales Services and Trouble Shooting with Documentary Evidence of its Ownership

5. Certificate of Bank showing Credit Worthiness along with Current Bank Statement

6. Undertaking of Affidavit that the Firm is not involved in any Litigation or Abandoned any Work in any Department

7. Affidavit to the effect that the Firm/Supplier has not been Black Listed previously by any Executing Agency

8. Latest Income Tax Certificate (NTN)

9. The Firm/Contractor should be registered with Sindh Revenue Board

10. Integrity pact need to be furnished on legal stamp paper along with bid.

11. Bidders are required to quote the unit prices of each item and total i.e inclusive of all the taxes applicable by the federal / provincial government

4. SCOPE OF WORK

Following requirements define the scope of work of this tender:

1. The Selected Bidder will be responsible for the supply, installation, configuration, integration, testing and commissioning of supplied equipment mentioned in BoQ at Quaid-e-Awam University Nawabshah

2. Selected Bidder must ensure that the supplied equipment is operational, new, perform properly, and meet RFP's Technical Specification and it is not going to be EOF & End of support for next five years. And equipment part remain available with the vendor for said period.

3. For this project the selected firm will be liable to configure any or all feature and required services at procured equipment for the University

4. Official Hands on Training to nominated QUEST Professionals. (3 No.)

5. At the time of installation and commissioning, Selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.

6. The selected bidder shall be responsible for the provisioning of extended warranties and service.

7. The selected bidder will be responsible to respond to events on urgent basis during warranty period as per standard rules.

8. Selected bidder shall be responsible for initially 1 years of Services Extendable for 3 years, with mutual consent (SLA).

5. SELECTION PROCEDURE

1. A two step process will be used for the selection of a bidder for the award of this tender.

2. Quaid-e-Awam University intent in issuing this Tender Document is to award a contract to the best evaluated and best responsive bidder who meets specifications as

laid out in Technical information and who fulfill all Mandatory Requirements mentioned in General Terms and Conditions. If any of the requirements or equipment specifications is not met by the bidder, the bid will be considered as non-responsive, and the bid of the next bidder will be considered.

3. Three Sections A, B and C for Selection Process. Bidder can quote in all or the respected sections as per their area of interest.

4. After the approval of contract award, a contract agreement on the stamp paper worth Rs. 200/- shall be executed by the firm with selected bidder within 15 days from the date of issuance of Letter of Intent.

5. The selection criteria for Category 4 is on best financial bid

6. OEM Relationships & Warranties

The responding organization (RO) should be an authorized business partner from the ORIGINAL EUIPMENT MANUFACTURER (OEM), for the proposed hardware, software or networking components in Pakistan. A certificate to their effect should be included in the proposal otherwise the bid is liable to be rejected. (Annexure-III)

Selected vendor will provide maintenance / support service, after expiry of warranty, for each category of products identified, at a rate, which is not more than 10% of the initial purchase / license cost. Selected vendor should also be committed to provide maintenance / support service for a period of at least three years after expiry of warranty period. However, Quaid-e-Awam University will not be bound to avail this service.

Warranty for this project

- Selected Bidder shall provide onsite Warranty/Services for the equipment and Software Support and Bidder shall ensure that all equipment (items) and its parts supplied to Quaid-e-Awam University are new (non-refurbished and not reaching end of life and ensure the parts availability for next three years in next 5-years

- Bidder has to provide 1 Resident Engineers for this project six month after FAC.

- Comprehensive Warranty/ services must be provided for a period of 1 Years.

- It will be the responsibility of the selected contractor to deploy the equipment related firmware and any ios patch as and when released by product principle during warranty period.

7. TERMS OF PAYMENT

1. No payment shall be made in advance to the Contractor as mobilization advance.

2. Fifty percent (50%) cost of equipment shall be paid after successful delivery of equipment at Quaid-e-Awam University Nawabshah.

3. Fifty percent (50%) cost of equipment shall be payable to the Contractor upon successful installation, proper integration, testing & commissioning of all equipment as per requirement of at Quaid-e-Awam University Nawabshah

4. Eight Percent (8%) of the payable amount against each invoice/payment will be retained as security/retention money. 8% retained money will be released after successful completion of 1st year warranty Services. Or contractor may submit or extend performance bank guarantee of equivalent amount which will be released after 1st year of warranty services.

5. The bidder will also provide the one and three years SLA price after the expiry of the warranty period in PKR only.

6. The successful bidders may be asked to provide imported equipment through LC on C&F basis.

7. Taxes will be deducted at source as per government rules at the time of payment.

8. The 2% earnest money of the successful bidder will be returned after the signing of the contract within 30 days.

9. The Selected Bidders has to furnish the Performance Bank Guarantee equivalent to 10 % of contract value at the time of singing of contract, which will be released on delivery of all equipment and submission of all invoices.

10. Terms of payment may be readjusted with mutual decision and competent authority approval.

8. LIQUIDATED DAMAGES

1. In case of delay or violation, the Vice chancellor reserves the right to impose a penalty not exceeding 5% of the total amount of the contract at the rate of 0.5% of the bill for each delay or violation.

2. in case of services delay or unsatisfactory service deliver non-complying the terms of the comprehensive warranty services, Contractor performance Bank Guarantee / Retention Money will be forfeited

9. MEET OR EXCEED SPECIFICATIONS

The specifications provided in this RFP are the minimum requirements of QUEST. The vendors 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 QUEST to clearly identify modified specifications.

10. CLARIFICATIONS

Queries regarding this RFP shall be submitted in writing to:

Engr Atta MuhammadChandio

Director, I.T. Services

Quaid-e-Awam University Nawabshah.

Phone: 0244-9370364

Fax: 0244-9370367

E-mail: director.its@quest.edu.pk

Annex-I: Proposal Submission Form.

PROPOSAL SUBMISSION FORM

The Project Director
(Development)
QUEST Nawabshah

Sir,

We, the undersigned, offer to provide services for "_____" and in accordance with your Request for Proposal dated_____, and our Proposal. We are here by submitting our Financial Proposal along with Technical compliance, sealed in envelope.

We understand you are not bound to accept any Proposal you receive and reserves the right to accept or reject any offer and to annul the bidding process and reject all proposals without assigning any reason or having towing explanation whatsoever.

The decision of evaluating committee shall be final and cannot be challenged on any ground at any forum and the evaluating committee will not be liable for any loss or damage to any party acting in reliance thereon.

We remain, yours'

Yours' sincerely

Authorized Signature:
NameandTitleofSignatory:
Name ofFirm:
Address:

Annex-II: Firm's References

Relevant Services carried out in the Last three Years
That Best Illustrate Qualifications

Using the format below, provide information on each reference assignment for which your firm/entity, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

Assignment Name:	Country:
Location within Country:	Key Professional Staff Provided by Your Firm/ entity(profiles):
Name of Client:	No: of Staff:
Address:	NO. of Staff-Months; duration of assignment:
Start Date (Month/Year): Completion Date (Month/Year):	Approx. Value of Services (in Current):
Name of Associated Consultants, if any:	No: of Months of Professional Staff Provided by Associated Consultants:
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:	
Narrative Description of Project:	
Description of Actual Services Provided by Your Staff:	

Firm's Name:

_____

_____

ANNEX-III: MANUFACTURER'S AUTHORIZATION FORM (MAF)

No._____   dated _____
To _____

We _____ who are established and reputable manufactures of
_____ having offices at _____ and _____ do hereby
authorize M/S_____(Name and address of Agent/Dealer) to offer their
quotation, negotiate and conclude the contract with you against the above invitation for
tender offer.

We hereby extend our full guarantee and warranty as per the terms and conditions of the
tender and the contract for the equipment and services offered against this invitation for
tender offer by the above firm.

Yours faithfully,

(Name) for and on behalf of M/s_____ (Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturing concern and
should be signed by a competent person of the manufacturer.

ANNEX-IV: TENDER FORM

(Tender Fee Rs. 5000/-)

Subject: ACTIVE EQUIPMENT AND PASSIVE SUPPLY AND WORK, Sever, Storage, Network security devices, internal work of DATA Centre & POWER DG Set

Tender cost of the supply   Rs._____

Earnest money at the @2% on tender cost: Rs._____

Percentage to be deducted from the bill: Rs._____

Time allowed for the completion of supply from the date of written order to commence supply:

Project Director
Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, issue to

M/S._____
The sum of Rs._____ is forwarded hereby vide call deposit No:_____dated_____ as earnest money. The full value of which is absolutely forfeited to the Vice Chancellor, Quaid-e-Awam University or his successor in his office, should I / we in any way default on the supply tendered for and which shall otherwise along with the percentage deducted as specified above be retained to from my / our security deposit for the correct execution or the supply as per conditions of the contract.

I/We certify that I/ We have been and carefully read all the schedule of specifications and conditions of the contact carrying the work tendered for before tendering and hereby agree to avoid by the terms and conditions.

Signature of Supplier
Dated_____

Annex-V: Technical Compliance for Advance Anti Malware Solution

Network Threat Prevention (Web)

- To show that Security Vendor is innovative in the space of advanced threat defense please reference <u>at least one patent awarded to the vendor in the area of advanced threat defense</u>
- Vendor should have won a recent award specifically for APT Solutions

Basic functional requirements

Requirement number	Description	Compliance Yes / NO
1.	The solution must detect Zero-Day and APT attacks. Please state a proven track record of the proposed solution. (Provide CVE and online vendor's acknowledgment of zero day vulnerabilities uncovered by your APT technology – not based on human research) Example: CVE-2015-xxx Application: Adobe Date: 2015 April Technical details: URL for online blog/report/operation	
2.	The solution must be able to block data ex filtration attempts in real time.	
3.	The solution must be able to detect all three stages of the modern malware's attack lifecycle, while highlighting every stage of the attack: - Exploit stage; - Dropper stage; - Data ex filtration stage.	
4.	The solution must be invisible to both the attacker and the computer user.	
5.	The solution must be able to provide detection without adding any noticeable latency to the network communication.	
6.	The solution should perform dynamic real-time analysis of advanced malware on the appliance itself to confirm true zero-day and targeted attacks. No information should be send to third party systems or cloud infrastructure system for analysis and detection of malware.	
7.	The solution must be able to block outbound command and control communications from compromised systems in order to preserve the data's confidentiality.	
8.	The solution must be able to accurately identify malware and maintain a very low false-positive rate. Detection should include protection against malware missed by existing security products.	

9.	The solution must utilize a Dynamic Threat Intelligence network to benefit from information gathered by the research efforts of the vendor, in which subscribers receive and optionally share malware intelligence such as zero-day attacks and callback destinations.	
10.	Solution must be able to detect stealth malware both entering the network exploiting vulnerability, and communicating out to the Internet. Real-Time detection of unknown malware must be done without the use of Signatures, Lists, or static Rules since 90%+ of modern malware and malicious domains change hourly.	
11.	The solution must be able to provide detailed forensic data of the actual infection, demonstrating the Full Attack Lifecycle of how the infection took place. Forensic data must include a complete timeline of the attack; web links; MD5/SHA1 hashes and actual Attached Malware binaries; any changes to Host OS; Registry; File System; & System Startup; and chronological step-by-step of the entire attack, not solely a portion of the Attack.	
12.	The solution must not allow network communication from the analysis VM/Sandbox to the Internet. Malware inside the VM sandbox must not be allowed to communicate with any C&C or URL on the Internet.	
13.	The solution must be able to utilize XFF headers to identify the client machine generating the alerts when deployed in front of a proxy server.	

Detection capabilities

Requirement number	Description	Compliance Yes / No
1.	The solution must utilize custom Virtual Machine (on-premise) technology to positively identify malware, including zero-hour vulnerability exploits, polymorphic payloads, and obfuscated java-script. The virtualization solution must not be detectable by malware in order to avoid evasion. The Hypervisor must not be an OEM solution such as from VMWare, VirtualBox..etc	
2.	The solution must be able to analyze multiple file types by using multiple applications and multiple versions on them, including: exe, dll, pdf, doc, docx, xls, xlsx, gif, jpeg, png, tiff, swf, mov, qt, mp4, jpg, mp3, asf, ico, htm, url, rm, com, vcf, ppt, rtf, chm, hlp and other.	
3.	The analysis must be performed runtime in order to detect all the malware actions, even the ones that fail in the virtual environment but might be successful on a client workstation.	
4.	The solution must be able to detect and report web exploits by using multiple versions of web browsers and plug-ins	

5.	The solution must be able to detect and report malware downloaded by users, or downloaded in the context of a web exploit by using multiple client operating systems with multiple service pack levels.	
6.	The solution must be able to automatically generate a network communication profile if the malware tries to contact network resources during the analysis. This profile must be used to determine if systems on the network are compromised.	
7.	The solution must be able to detect when system sleep functions are used by malware to avoid detection. It must also be able to accelerate the time to force the malware into execution.	
8.	The solution must be able to simulate network communication for a better analysis of the malware objects.	
9.	The solution must be able to simulate end used actions in order to force the execution of malware that rely on triggers from and end user, like a mouse click.	
10.	The solution must provide the full malware analysis report in less than 10 minutes from the download.	
11.	Supports custom YARA rule importation to enable security analysts to specify rules to analyze objects for threats specific to the organization.	
12.	Ability to fully forensically analyze identified malware and provide the following information to enterprise staff: - Comprehensive Host Modification Report - Copy of malware binary(s) - PCAP of all Malware Communications to Malware Command & Control servers - Full URL trails identifying all of the locations to which the malware attempts to communicate. - Summary reports of enterprise malware events breaking down malware by type, host, and activity. - Severity information, illustrating how effective your other defenses would have worked against this threat.	
13.	The solution should utilize a stateful attack analysis to detect the entire infection lifecycle, and trace the stage-by-stage analysis of an advanced attack, from system exploitation to outbound malware communication protocols leading to data ex filtration.	
14.	The solution shall be able to deal with VM evasion techniques.	
15.	The solution shall be able to detect Kernel level rootkits.	
16.	The solution shall be able to handle reflective DLL injection.	
17.	Solution shall be able to handle any covert techniques used by malware.	

Integration with existing infrastructure

Requirement number	Description	Compliance Yes / No
1.	The proposed solution should be appliance based.	
2.	The solution must be deployable inline for analyzing live traffic and Out-Of-Band on a Mirror or TAP.	
3.	The solution must be able to send notifications in the formats required by customer environment. Whether set for Syslog, SNMP, Http or Email, notifications must contain all data necessary for the proper action to be taken.	
4.	The solution must be able to fail open in case of a software or hardware malfunction.	
5.	The solution must be able to run in monitoring mode, without blocking Inbound or Outbound malicious communication.	
6.	Solution should be able to integrate with any SIEM (Security Information & Event Management) system such as ArcSight or Splunk; or a Forensics technology such as Guidance Encase.	
7.	The solution must be able to utilize NetBIOS and DNS for hostname resolution when generating alerts.	
8.	The solution must be able to utilize a proxy server with authentication in order to contact the update service.	

Administration and reporting

Requirement number	Description	Compliance Yes/No
1.	The solution must be administered through a web based console that doesn't require the installation of additional software.	
2.	The solution must allow the configuration of an ACL to control access to the management interface.	
3.	The solution must utilize a secure channel for the communication between the console and administrator. It must also allow the import of the digital certificate used for securing the communication channel.	
4.	The solution must allow the synchronization of time with an on premises NTP server.	
5.	The solution must allow the creation of accounts with different roles used to administer the solution, or just monitor the alerts.	

6.	The solution must allow the authentication to the console by using authentication services like RADIUS, TACACS+ and LDAP.	
7.	The solution must be able to send automated health alerts through SMTP to preconfigured destinations.	
8.	It must allow the export of reports and alerts relating to malware in PDF format.	
9.	It must allow the grouping of alerts by the following criteria: Source IP, Destination HP, Hostname, threat name and severity.	
10.	The solution must report on the bandwidth monitored, network interface status and the network traffic detected on these, information about the software running on the appliance and software available for updating.	
11.	The solution must allow the configuration of a login message.	

File Type, Application and Version built into VM for Virtual Execution

File Type	Application and Version built into VM for Virtual Execution	Compliance Yes /no
3gp	QuickTime Player 7.7, 7.6, Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0 Real Player 12.0,16.0, VLC Media Player 2.0, 2.1	
applet	Multiple Java JDK JRE	
asf	Windows Media Player 12.0, 11.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
bat	Windows Explorer	
cab	Windows Explorer	
chm	Microsoft Compiled HTML Help	
cmd	Windows Explorer	
com	Windows Explorer	
csv	MS Excel 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
dll	RunDLL 1.0	
doc	MS Word 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
docx	MS Word 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
exe	Windows Explorer	
flv	RealPlayer 16.0, VLC Media Player 2.0, 2.1	
gif	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
hlp	Microsoft Windows Help File	
hml	Hancom Office Viewer 2010, 2007	
htm	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0,	

	8.0, 9.0 10.0, 11.0	
hwp	Hancom Office Viewer 2010, 2007	
hwt	Hancom Office Viewer 2010, 2007	
ico	Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
jar	Java JDK JRE 8.0, 7.13	
jpg	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
js	Windows Scripting Host	
lnk	Windows Explorer	
mht	Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
midi	Windows Media Player 12.0, 11.0, QuickTime Player 7.7, 7.6	
mov	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0 QuickTime Player 7.7, 7.6	
mp3	QuickTime Player 7.7, 7.6, Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0 Real Player 12.0,16.0, VLC Media Player 2.0, 2.1, Windows Media Player 11, 12	
mp4	QuickTime Player 7.7, 7.6, Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0 Real Player 12.0,16.0, VLC Media Player 2.0, 2.1	
mpg	Windows Media Player 12.0, 11.0, QuickTime Player 7.7, 7.6	
msi	Windows Explorer	
pdf	Adobe 7, 8, 9, 9.4, 10, 10.1, 11, Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
png	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
ppsx	MS PowerPoint 2007, 2010sp2 2013	
ppt	MS Word 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
pptx	MS PowerPoint 2007, 2010sp2 2013	
qt	QuickTime Player 7.7, 7.6, Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0, VLC Media Player 2.0, 2.1	
rm	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0 Real Player 12.0,16.0, VLC Media Player 2.0, 2.1, Windows Media Player 11, 12	
rmi	Windows Media Player 12.0, 11.0	
rtf	MS Word 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
swf	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
tiff	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	
url	Chrome 25.0,26.0,36.0, FireFox 19.0, 30.0, Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	

vbs	Windows Scripting Host	
vcf	Windows Explorer	
vcs	Windows Explorer	
wav	QuickTime Player 7.7, 7.6, Real Player 12.0,16.0, VLC Media Player 2.0, 2.1, Windows Media Player 11, 12	
wma	Windows Media Player 12.0, 11.0	
wsf	Windows Scripting Host	
xls	MS Excel 2003sp2, 2003sp3, 2007, 2010sp2, 2013	
Xlsx	MS Excel 2007, 2010sp2 2013	
xml	Internet Explorer 7.0, 8.0, 9.0 10.0, 11.0	

Annex-VI: Technical Compliance for UPS and Power Work

UPS

- Bypass Connection   4 wire (3Ph + N)
- Output Power Capacity   24 kW / 30 kVA
- Max Configurable Power per UPS   24 kW / 30 kVA
- In parallel operation the scalable output power should be 48KW/60 KVA
- Topology Double Conversion Online
- Waveform Type Pure Sine wave
- Output Connections (1) Hard Wire 4-wire (3PH + G) (2) Hard Wire 5-wire (3PH + N + G)
- Output Voltage THD   < 2% linear load and <3% non-linear load
- Bypass   Internal Bypass (Automatic and Manual), Optional External Bypass Input
- Input Connections Hard Wire 4-wire (3PH + G)
- Input Total Harmonic Distortion Less than 3% for full load
- Type of Input Protection Required 3-pole breaker

Batteries & Runtime · No internal battery - uses external battery system
- Battery Type VRLA
- Battery Design Life 5 - 8 Year(s)
- Minimum One (1) hour backup at Full Load.
- N+1 redundancy with parallel operation of UPS up to 60 KVA
- Battery Service Life 3 - 5 Year(s)
- Included Battery Modules 5
- Battery Slots Empty 4
- Typical recharge time 2 hour(s)
- Maximum Available Short Circuit
- Efficiency in Battery Operation 94.70%
- End of Discharge Maximum Battery Current 351

Communications & Management · Available Smart Slot Interface Quantity 3
- Control panel · Multi-function LCD status and

control console · Emergency Power Off (EPO)
- Audible alarms for low battery and other faults
- Centralized NMS to monitor both Standard Warranty
- 1 year on-site repair or replace with factory authorized Start-Up

UPS Input DB

- Minimum 16 AWG plate used for fabrication
- Indication Lights
- Digital Amp & Volt meters
- 2 x 150 Amp breakers
- Output Bus bars along with neutral bus bar

- The box should have the provision for special key for locking & proper arrangement of sealing.

UPS Output D B

Minimum 16 AWG plate used for fabrication

- Indication Lights
- Digital Amp & Volt meters
- 1 X 200 Amp T.P Breaker(Schneider or equivalent)
- 20 x 32 Amp S.P breakers (Schneider or equivalent)
- Neutral bar &   Ground Bar

The box should have the provision for special key for locking & proper arrangement of sealing.

Power Distribution Units (PDU

- Input Connector: IEC-320- C19/20

   Output Connector: (12) IEC- 320-C13/14
   Nominal Input Range: 120-240 VAC
   Input Frequency: 50/60 Hz
   Compliance: UL/CUL Listed UL 60950, EN 60950, VDE, AS/NZS 60950

Power Breakers Brand

- Merlin Gering/Schneider (France) or Equivalent.
- All breakers should be branded.
- The Selected Bidder would provide documentary proof for confirmation of the item being genuine.
- Warranty and replacement as per warranty

Power Cable Brand

Pakistan Cables or equivalent (bidder should provide the proof of the brand on the letter head at the time of bid submission)

Bill of Quantities (BoQ)

Cat: A (Supply, Installation and Testing of Network Active & Passive Equipment)

S.No.	Part Number	Description	QTY	Unit Price	Total	Total Price with TAX
Wi-Fi Solution						
1	**AIR-CT5508-100-K9**	Cisco 5508 Series Wireless Controller for up to 100 Aps	1			
2	CON-SNT-CT08100	SC CORE 8X5XNBD Cisco 5508 Series	1			
3	LIC-CT5508-100	100 AP Base license	1			
4	LIC-CT5508-BASE	Base Software License	1			
5	SWC5500K9-80	Cisco Unified Wireless Controller SW Release 8.0	1			
6	AIR-PWR-CORD-UK	AIR Line Cord United Kingdom	2			
7	AIR-PWR-5500-AC	Cisco 5500 Series Wireless Controller Redundant Power Supply	1			
8	GLC-TE=	1000BASE-T SFP transceiver module for copper wire	8			
9	**AIR-AP1832I-C-K9**	802.11ac Wave 2; 3x3:2SS; Int Ant; C Reg Domain	100			
9	SW1830-CAPWAP-K9	Cisco 1830 Series CAPWAP Software Image	100			
10	AIR-AP-T-RAIL-R	Ceiling Grid Clip for Aironet APs - Recessed Mount (Default)	100			
11	AIR-AP-BRACKET-1	802.11n AP Low Profile Mounting Bracket (Default)	100			

S.No.	Part Number	Description	Qty	Unit Price	Total	Total Price With TAX
Cisco Switches						
1	**C1-C2960X-24PD-L**	Catalyst 2960-X 24 GigE PoE 370W, 2 x 10G SFP+, LAN Base	9			
2	CAB-AC15A-90L-US	15A AC Pwr Cord, left-angle (United States) (bundle option)	9			
3	PWR-CLP	Power Retainer Clip For Cisco 3560-C and 2960-C Compact Swit	9			
4	**SFP-10G-LR-S=**	10GBASE-LR SFP Module, Enterprise-Class	9			
5	CON-ECMU-C1FPC291	SWSS UPGRADES C1 FND Perpetual - Cat2900 24 Port	9			

S.No.	Part Number	Description	Qty	Unit Price	Total	Total Price with TAX
Cisco Switches						
1	**SG500X-24P-K9G5**	24PortGig POE w 4Port10GigStackableManaged	10			
2	**SFP-10G-LR-S=**	10GBASE-LR SFP Module, Enterprise-Class	10			
3	**CON-SCN-SG5039G5**	SC CORE 8X5XNBD 24-Port Gig POE with 4-Port 10-Gig Stackable	10			

S.No.	Part Number	Description	Qty	Unit Price	Total	Total Price with TAX
		Core Switch				
1	**N9K-C9504-B3**	Nexus 9504 Chassis Bundle with 1 Sup, 3 PS, 2 SC, 4 FM, 3 FT	1			
2	N9K-C9500-SUP-CV	Nexus 9500 Supervisor slot cover	1			
3	N9K-C9504-FM	Fabric Module for Nexus 9504 chassis	4			
4	N9K-C9504-FM-CV	Nexus 9508 Fabric Module slot cover	1			
5	N9K-C9500-LC-CV	Nexus 9500 Line card slot cover	2			
6	N9K-C9500-P-CV	Nexus 9500 Power Supply slot cover	1			
7	N9KDK9-612I2.2B	Nexus 9500/9300/3164PQ Base NX-OS Software Rel 6.1(2)I2(2b)	1			
8	N9K-C9500-ACK	Nexus 9500 Accessory Kit	1			
9	N9K-C9504-FM	Fabric Module for Nexus 9504 chassis	0			
10	N9K-C9504-RMK	Nexus 9504 Rack Mount Kit	1			
11	N9K-C9504-FAN	Fan Tray for Nexus 9504 chassis, Port-side Intake	3			
12	N9K-SC-A	System Controller for Nexus 9500	2			
13	N9K-SELECT-SUP-A	PID to Select Default Supervisor: N9K-SUP-A	1			
14	N9K-SUP-A	Supervisor for Nexus 9500	1			
15	N95-LIC-PAK	N9500 License PAK Expansion	1			
16	N9K-SELECT-C95PAC	PID to Select Default Power Supply: N9K-PAC-3000W-B	3			
17	N9K-PAC-3000W-B	Nexus 9500 3000W AC PS, Port-side Intake	3			
18	CAB-ACS-16	AC Power Cord (Swiss) 16A	3			
19	N95-LAN1K9	LAN Enterprise License for Nexus 9500 Platform	1			
20	N9K-X9464PX	Nexus 9500 linecard, 48p 1/10G SFP+ & 4p QSFP	1			
21	GLC-LH-SMD	1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	2			
22	SFP-10G-LR-S	10GBASE-LR SFP Module	22			

Residential Internet

S.No	Part No	Description	Qty	Unit price	Total	Total Price with tax
1	WS-C3850-12XS-E	Cisco Catalyst 3850 12 Port 10G Fiber SwitchIP Services	1			
2	C3850-NM-4-10G	Cisco Catalyst 3850 4 x 10GE Network Module	1			
3	GLC-LH-SMD=	1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	8			
4	SLM2008PT-EU	SG 200-08P 8-port Gigabit PoE Smart Switch	16			
5	MGBLH1	Gigabit Ethernet LH Mini-GBIC SFP Transceiver	16			

Security

		Cisco Firewall				
S.No	Part Number	Description	Qty	Unit Price	Total	Total Price With TAX
1	**ASA5525-FPWR-BUN**	ASA 5525-X with FirePOWER Svcs. Chassis and Subs. Bundle	1			
2	ASA5525-FPWR-K9	ASA 5525-X with FirePOWER Services, 8GE, AC, 3DES/AES, SSD	1			
3	CON-SCIN-A25FPK9	SC IPS 8X5XNBD ASA 5525-X with FirePOWER Services, 8GE,	1			
4	SF-ASA-X-9.2.2-K8	ASA 9.2.2 Software image for ASA 5500-X Series,5585-X,ASA-SM	1			
5	ASA5525-BOT-1YR	ASA 5525-X Botnet Traffic Filter License for 1 Year	1			
6	ASA5525-CTRL-LIC	Cisco ASA5525 Control License	1			
7	ASA5525-ME-K9	ASA 5525-X Intercompany Media Engine K9 License	1			
8	ASA-RAILS	ASA 5512-X -- ASA 5555-X Rail Kit	1			
9	SF-ASA-FP5.4-K9	Cisco FirePOWER Software v5.4 for ASA 5500-X	1			
10	CAB-ACU	AC Power Cord (UK), C13, BS 1363, 2.5m	1			
11	ASA5500X-SSD120INC	ASA 5512-X through 5555-X 120GB MLC SED SSD (Incl.)	1			
12	ASA5525-MB	ASA 5525 IPS Part Number with which PCB Serial is associated	1			
13	ASA5500-ENCR-K9	ASA 5500 Strong Encryption License (3DES/AES)	1			
14	ASA-IC-B-BLANK	ASA 5525-X Interface Card Blank Slot Cover	1			
15	L-ASA5525-TAMC-PR=	Cisco ASA5525 FirePOWER IPS, AMP and URL Licenses Promotion	1			
16	L-ASA5525-TAMC-1PR	Cisco ASA5525 FirePOWER IPS, AMP & URL 1YR Subs PROMOTION	1			
17	FS-VMW-2-SW-K9	Cisco Firepower Management Center,(VMWare) for 2 devices	1			
18	CON-SAU-VMWSW2	SW APP SUPP + UPGR Cisco FireSIGHT Mana	1			

Cisco ISE

S.No.	Part Number	Description	Qty	Unit Price	Total	Total Price with Tax
1	R-ISE-VM-K9=	Cisco Identity Services Engine VM (eDelivery)	1			
2	R-ISE-BSE-1000=	Cisco Identity Services Engine 1000EndPoint Base License	1			

QUEST IP Telephony
Note: Below Solution has to be integrate with QUEST Existing Alcatel Omni PCX (IP supported)

S.No.	Part Number	Description	QTY	Unit Price	Total	Total Price with TAX
1	**BE6M-M4-K9=**	Cisco Business Edition 6000M Svr (M4), Export Restricted SW	2			
2	CON-PSJ1-C220M4S	UCS SUPP PSS 8X5XNBD UCS C220 M4 SFF w/o CPU, mem, HD	2			
3	CAB-9K10A-UK	Power Cord, 250VAC 10A BS1363 Plug (13 A fuse), UK	2			
4	VMW-VS5-HYP-K9	Cisco UC Virt. Hypervisor 5.x (2-socket)	2			
5	BE6K-SW-10X11X-K9	Cisco Business Edition 6000 - Software App Version 10.X 11.X	2			
6	VMW-VS5-SNS	Cisco UC Virt. Hypervisor 5.x - SnS	2			
7	CIT-A03-D300GA2	300GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	12			
8	CIT-PSU1-770W	770W AC Hot-Plug Power Supply for 1U C-Series Rack Server	2			
9	CIT-CPU-E52630D	2.40 GHz E5-2630 v3/85W 8C/20MB Cache/DDR4 1866MHz	2			
10	R2XX-RAID5	Enable RAID 5 Setting	2			
11	CIT-MR-1X162RU-A	16GB DDR4-2133-MHz RDIMM/PC4-17000/dual rank/x4/1.2v	4			
12	CIT-MRAID12G	Cisco 12G SAS Modular Raid Controller	2			
13	CIT-MRAID12G-1GB	Cisco 12Gbps SAS 1GB FBWC Cache module (Raid 0/1/5/6)	2			
14	**R-CBE6K-K9**	Cisco Business Edition 6000-Electronic SW Delivery-Top Level	1			
*15	BE6S-SW-11.0	Business Edition 6000S v11 export restricted software	1			
16	BE6K-START-UCL35	BE 6000 - UCL Starter Bundle with 35 Enh and 35 VM Licenses	1			
17	VCS-C-GWBDL	VCS-C Video Gateway Bundle for BE6000	1			
18	BE6K-UCL-BAS	Cisco Business Edition 6000 - Basic User Connect License	265			
19	UC-10.X	Version 10.x	1			

20	CUCILYNC-CLNT-UWL	Cisco Unified Comm Integration for Lync for CUWL only	1			
21	IPC8-CLIENT-UWL	IP Communicator 8.x for CUWL only	1			
22	JAB-ADR-CLNT-UWL	Jabber for Android CUWL Only	1			
23	JAB-IPH-CLNT-UWL	Jabber for iPhone CUWL Only	1			
24	JABBER-SDK	Jabber Software Development Kit	1			
25	VXME-LINUX-UWL	Cisco VXME for SUSE Linux for CUWL	1			
26	VXME-WINDOWS-UWL	Cisco VXME for Windows for CUWL	1			
27	JABBER-TABLET	Jabber for iPad and Android Tablet	1			
28	JABBER-DESKTOP	Jabber for Desktop for PC and Mac	1			
29	EXPWY-VE-C-K9	Cisco Expressway-C Server, Virtual Edition	1			
30	LIC-EXP-RMS	Expressway Rich Media Session	1			
31	SW-EXP-8.X-K9	Software Image for Expressway with Encryption, Version X8	1			
32	JABBER-GUEST	Jabber Guest Session	1			
33	CCX-11-PAK	CCX 11 auto expanded PAK	1			
34	CCX-11-E-SVR-LIC	CCX 11.0 NEW ENH Server License	1			
35	CCX-11-N-E-LIC	CCX 11.0 ENH Seat Qty 1 LICENSE ONLY	5			
36	UCM-11X-ENH-UCL	BE6K UCM 11X Enhanced User Connect Lic - Single Fulfillment	35			
37	UCXN-11X-SCPORTS	BE6K - Unity Connection 11x - VM Speech Connect Ports	2			
38	UCN-11X-VM-UCL	BE6000 Unity Connection 11x Basic Voicemail License	35			
39	UCM-11X-BAS-UCL	BE6K UCM 11X Basic User Connect License - Single Fulfillment	265			
40	JAB-ADR-RTU	Jabber for Android Right to Use	1			
41	CUCILYNC-UWL-RTU	CUCILYNC UWL Right to Use Certificate	1			

42	CIPC-UWL-RTU	CIPC UWL Right to Use Certificate	1			
43	JAB-IPH-RTU	Jabber for i-Phone Right to Use	1			
44	VXME-LINUX-K9-RTU	VXME for SUSE Linux Right to Use	1			
45	VXME-WIN-K9-RTU	VXME for Windows Right to Use	1			
46	JAB-GUEST-RTU-K9	Jabber Guest Right to Use	1			
47	JABBER-TABLET-RTU	Jabber for Tablet Right to Use	1			
48	JABBER-DSK-K9-RTU	Jabber for Desktop Right to Use	1			
49	BE6K-VCSC-PAK	BE6K VCS-C License PAK	1			
50	LIC-VCS-GW	Enable GW Feature (H323-SIP)	1			
51	LIC-VCSE-5+	Video Communication Server - 5 Traversal Calls	1			
52	LIC-VCS-10+	Video Comm Server 10 Add Non-traversal Network Calls	1			
53	LIC-SW-VMVCS-K9	Software Release Key for Encrypted Virtual VCS Application	1			
54	LIC-EXP-E-PAK	Expressway Series, Expressway-E PAK	1			
55	LIC-EXP-GW	Enable GW Feature (H323-SIP)	1			
56	LIC-SW-EXP-K9	License Key Software Encrypted	1			
57	LIC-EXP-SERIES	Enable Expressway Series Feature Set	1			
58	JAB-SDK-K9-RTU	Jabber Software Development Kit RTU	1			
59	BE6K-PAK	Cisco Business Edition 6000 - PAK - Single Fulfillment	1			
60	BE6K-UXL-START	BE6K Starter Pack - Single Fulfillment Enforcement	1			
61	CCX-11-5E	CCX 11 Enhanced 5 seat Promo Bundle	1			
62	**CISCO2901-V/K9**	Cisco 2901 Voice Bundle, PVDM3-16, UC License PAK, FL-CUBE10	1			
63	CON-SCIN-2901V	SC IPS 8X5XNBD Cisco 2901 Voice Bun	1			
64	PWR-2901-AC	Cisco 2901 AC Power Supply	1			
65	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	1			

66	ISR-CCP-EXP-NOCONF	Cisco Config Pro Express on Router Flash w/o default config	1			
67	FL-CUBEE-5	Unified Border Element Enterprise License - 5 sessions	2			
68	PVDM3-16	16-channel high-density voice DSP module	1			
69	SL-29-IPB-K9	IP Base License for Cisco 2901-2951	1			
70	MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	1			
71	SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1			
72	MEM-CF-256MB	256MB Compact Flash for Cisco 1900, 2900, 3900 ISR	1			
73	S29UK9-15501T	Cisco 2901-2921 IOS UNIVERSAL	1			
74	VWIC3-2MFT-T1/E1	2-Port 3rd Gen Multi-flex Trunk Voice/WAN Int. Card - T1/E1	1			
75	PVDM3-64	64-channel high-density voice DSP module	1			
76	VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	3			
77	**CP-7811-K9=**	Cisco UC Phone 7811	5			
78	CON-SCN-CP78119K	SC CORE 8X5XNBD Cisco UC Phone 7811	5			
79*	**CP-3905=**	Cisco Unified SIP Phone 3905, Charcoal, Standard Handset	290			
80	CON-SCN-CP3905	SC CORE 8X5XNBD Cisco Unified SIP Phone 3905, Charcoal,	290			
81	**CP-8841-K9=**	Cisco IP Phone 8841	5			
82	CON-SCN-CP8841K9	SC CORE 8X5XNBD Cisco UC Phone 8841	5			
83	**CP-DX70-W-K9=**	Cisco DX70 (White)	4			
84	CON-SCN-CPDX70WK	SC CORE 8X5XNBD Cisco DX70 (White)	4			
85	CP-PWR-CORD-UK	Power Cord, United Kingdom	4			
86	**CUAC11X**	Cisco Unified Attendant Consoles 11.x	1			
87	CON-ECMU-CUACVT1X	SWSS UPGRADES Cisco Unified Attendant Consoles 11.x	1			
88	CUAC11X-ADV	Cisco Unified Attendant Console Advanced 11.x - 1 Lic	1			
89	CON-ECMU-CUAC11XA	SWSS UPGRADES Cisco Unified Attendant Console Advanced	1			
90	**CP-8851-K9=**	Cisco IP Phone 8851	1			

S.No		Item Description	Qty			
91	CON-SCN-CP8851K9	SC CORE 8X5XNBD Cisco UC Phone 8851	1			
92	**CP-BEKEM=**	Cisco IP Phone 8800 Key Expansion Module	1			
93	CON-SCN-CPBEKEM	SC CORE 8X5XNBD Cisco IP Phone 8800 Key Expansion Module	1			
94	**CP-PWR-CUBE-4=**	IP Phone power transformer for the 89/9900 phone series	1			
95	**CP-PWR-CORD-UK=**	Power Cord, United Kingdom	1			

* Entry level cisco IP phone 2 Ethernet port, DHCP, DNS supported, features include user easy access, hand free, bi-direction navigation, mute, one line 20 character black and white display.

Passive Component

S.No	Item Description/Work	Qty	Price	Total Cost	Total Cost with Taxes
1	Enhanced Cat-VI AWG PVC solid UTP Cable roll (1000 ft) 3M/Schneider/Panduit	35			
2	Patch Panel (modular) Enhanced cat-6 24x port including I/Os3M/Schneider/Panduit1U black color	20			
3	Patch Cord Enhanced Cat-vi 1 meter Patch Cord 3M/Schneider/Panduit	300			
4	Patch Cord Enhanced Cat-vi 2 meter Patch Cord 3M/Schneider/Panduit	100			
5	Patch Cord Enhanced Cat-vi 3 meter Patch Cord 3M/Schneider/Panduit	200			
6	Fiber Patch Cord 10/20 meter	65			
7	SERVICE charges structured UTP cabling including Ducting, tagging, organization, activation with UTP fluke testing nodes	7000 Meter			
8	6 U Rack with 2 PDU (Totten or Eq:)	06			
9	12 U Rack with 2 PDU 4 port (Totten or Eq:)	14			
10	Information outlet RJ-45 Enhanced Cat-vi with face plate & Back Box 3M/Schneider/Panduit	300			
11	Connectors RJ-45 cat-6 3M/Schneider/Panduit	500			
12	Distribution Box 50 pair distribution box with tag block + termination and cover	12			
13	MDF with Fuse Protection and Wall Mount Frame for 300 Lines	1			
14	PCM Cable (100 Pair/m) extension to new Department and residence colony	2000			
15	2-pair telephone wire (indoor/outdoor 300 ft roll)	30			
16	20 pair PCM copper telephone cable (Direct Buried)	1000			
17	MDF Stripes (10-pair strip)	20			
18	PCM cable underground laying complete in all respect Charges (in Meter)	2500			
19	Telecom Cable (2-pair) including Ducting material & Service Charges per meter(in Meter)	2000			

Fiber

S.No.	Description	Qty	Unit	Rate	Total	Total Price with TAX
1	12 core Single mode Armored Direct(50/125 UmOM2) D-Link/Vivanco/AMP	2500	Mtr			
2	24 core Single mode Armored Direct D-Link/Viacom/AMP	1500	Mtr			
3	24-Port SC Duplex Fiber Panels (ODF) Rack mount Loaded with pigtail	12	Pcs			
4	12-Port SC Duplex Fiber Panels ODF Rack mounted. Loaded with pigtail	18	Pcs			
5	SC Duplex Fiber Pigtail Single mode	50	Pcs			
6	SC-LC Duplex Fiber Patch Cord 3 meter long	50	Pcs			
7	Excavation hard(road cross) and soft, back filling complete with stone/RCC ROUTE LOCATORS and civil works complete in all respects, 6" sand layer above and below PVC pipes, caution tape 6" wide, road dressing, carpeting where necessary, Water Proofing GI Steel Pull boxes Painted with Red Oxide where ever necessary with cement manholes with pit cover at cable direction change or where necessary, OTDR testing/core after termination at required ODF (in meters)	4000	Mtr			
8	Relocation of existing optical fiber and PCM cable from existing location to newly established ICT Data Centre with excavation (soft)	800	Mtr			

Technical Evaluation Criteria for Cat: A
(Supply, Installation and Testing of Network Active & Passive Equipment)

Sr. #	Description	Marks of Eligibility	Marks Obtained
1	MAF Required from the OEM (Manufacturer Authorization Form) for this RFP (The MAF is required for Network & passive items. The letter should be addressed to the University. **Mandatory**	30	
2	ISO 9001 certified	5	
3	100% Technical Compliance Quoted Solution as per BOQ.	10	
4	Past Experience in minimum 5 similar projects(Please attach copies)preferable in education sector. 2 Marks for each project.	10	
5.	At least 5 Certified Engineers in Network Infrastructure Services, CCNA/ CCNP/CCDA (attached Copies) and atleast 3 Certified Engineer in Passive from Principle.(Certification attached)	10	
6.	AnnualTurnOvershouldbeatleast150 M or above in last three years. Please submit the audit reports. For 150 million& more – 10points Between 50 to 100 million – 5points Less than 50 million – 1 point	10	
7	The company must be registered with Sales Tax, Income Tax & Sindh Revenue Board departments and should be active tax payer. GST, SRB and NTN must be registered with the name of the firm not with individuals.	5	
8	Tax returns of last 3years.	5	
9	The Company must have atleast 3 offices in Pakistan.(provide contact address)	5	
10	Scope of Work & Project implementation plan	10	

Cat: B
(Supply, Installation and Testing of Servers, Storage, Security Devices, Extension of Alcatel OmniPCX PABX, Computers & Accessories)

Blade Server

S.No.	Part Number	Description	Qty	Unit Price	Total	Total Price with TAX
1		HP/Dell/Cisco or equivalent Blade Server Chassis for 04 blades Blade Server AC2 Chassis, 0 PSU/8 fans/0 FEX 1.80 GHz E5-2630L v3/55W 8C/20MB Cache/DDR4 1866MHz 16 x 8GB DDR4-2133-MHz RDIMM/PC4-17000/single rank/x4/1.2v or higher In-Chassis FI with 4 UP, 1x40G Exp Port, 16 10Gb, Single phase AC power module VMware vSphere 6 standard or equivalent With all required accessories/kits and comprehensive warranty	01			

Storage Server						
No	Part Number	Description	Qty	Unit Price	Total Price	Total Price with TAX
		IBM Storage 40TB or equivalent				
1	IBM Storage or equivalent	3.5-inch Storage Controller Unit	1			
2		4 TB 7,200 rpm 6 Gb SAS NL 3.5 Inch HDD	10			
3		8Gb FC 4 Port Host Interface Card	2			
4		Rack Shipment Bracket	1			
5		8Gb FC SW SFP Transceivers (Pair)	2			
6		5m Fiber Cable (LC)	4			

S.no	Part Number	Description	Qty	Unit Price	Total	Total Price with TAX
1	Advance Antimalware solution	Advance Antimalware solution appliance with 12 months 2 way DTI & Support details & compliance can find at Annexure V	1			
2	SIEM Solution	IBM Q radar up to 5000 EPS with 12 months support	1			

Network Monitoring

S.No.	Description	Qty	Unit Price	Total	Total Price with TAX
1	Solar winds NMS Software etc. with three year support	01			
2	NMS Licenses	250			

Up gradation of Existing Alcatel Exchange Omni PCX

S.No.	Description	Qty	Unit Price	Total	Total Price with TAX
1	eZ32-2 Boards	07			
2	15 m MDF TY1 64pts DIN cable for UA, eZ, NDDI, BRA boards	07			
3	CLIP on Z interface license - 1 user	200			
4	Alcatel-Lucent 4760 Accounting additional software license for 100 extensions	03			
5	Analog Premium license - 1 user	200			
6	IP Premium license - 1 user	100			
7	Alcatel-Lucent IP Touch 4018 phone extended edition Urban Grey, 1x20 characters display, 2 directions navigator, hands free, 6 programmable keys with LED, Comfort handset, without power supply	80			
8	8028 INT Multiline - Team - Dial by name, Black & White, white backlight Graphical display - Hands free, Wide Band Comfort Handset, 4 programmable keys with Led & Paper Label, Alphanumeric Keyboard, Applications openness, 10/100/1000 BT - POE	20			
9	48V Power supply Rest of the world (x4) compatible with wired and wireless devices	52			
10	MDF with Fuse Protection and Wall Mount Frame for 200 Lines	Included			
11	Installation of System, System Programming and Commissioning	Included			

COMPUTERS AND ACCESSORIES

S.No	Item Description	Qty	Price	Total Price	Total Price with Taxes
1	IBM/HP/Dell Branded Intel Workstation Computer -Intel core i5 8 GB DDR3 HDD 500GB, DVDRW Gigabit LAN, 17" LCD Monitor, 1 GB HDMI/VGA Card	4			
2	HP/Dell Branded Notebook PC Intel core i3-5005U Processor, (3MB Cache, 2.0 GHz) 4 GB DDR3L 1600Mhz Memory, 500 GB SATA Hard Drive, Intel HD Graphics, 15.6-inch LED-Backlit Display, Free DoS, DVD R/W, Wifi, Webcam, 1 Year Warranty, for Technical staff	2			
3	UPS 3 KVA with separate battery bank (European Brand) **with two hour backup with installation**	10			
	UPS 6 KVA with separate battery bank (European Brand with 15 minutes backup at full load)with installation	1			
4	HP/Dell Branded Notebook PC Intel core i7-5005U Processor, (3MB Cache, 2.0 GHz) 8 GB DDR3L 1600Mhz Memory, 1 TB SATA Hard Drive, Intel HD Graphics, 15.6-inch LED-Backlit Display, Free DoS, DVD R/W, Wifi, Webcam, 1 Year Warranty.	4			
5	HP or equivalent Laser Printer, Print Speed Up to 40ppm , Standard Connectivity Hi-speed USB 2.0 port Host USB 2.0 Ethernet 10/100/1000T network, Two Sided Printing Automatic, Display 2-Line LCD, Paper Handling Tray 1: Up to 100 sheets Tray 2: Up to 250 sheets	4			
6	HP or equivalent Laser Color Printer With Network Support, Print Speed Black print speed Up to 28ppm3 Color print speed Up to 28ppm3 , Standard Connectivity Hi-speed USB 2.0 port Ethernet 10/100/1000Base-TX, Two Sided Printing Automatic , Display 2-Line LCD , Paper Handling Tray 1: up to 50 sheets Tray 2: up to 250 sheets	1			
7	Scanner, USB Supported, Color Depth 48bits, Maximum Document Size A4 and Legal, Maximum Resolution 4800x9600 dpi HP OR compatible	2			
8	Fax Machine with scanning facility. Panasonic/HP/Toshiba	1			
9	**Heavy Duty Photocopier Machine** Speed: minimum of 87 pages per minute in black & white (A4), Copy memory: 640Mb standard / 1024Mb maximum, Copy resolution: 600x600x8 dpi input/ 1200x4800 dpi interpolated output, Print resolution: 1200x1200 dpi, With 75 sheet duplex automatic document feeder, Paper input: two-550 sheet user –adjustable front loading trays; bypass tray-100 sheets (standard); with 3600-sheet (high capacity) paper trays, Paper size: from A5 to A3, 50-sheet multi-position stapling and 2-hole punch, Magnification: 25-400 %, With automatic double sided copying, Duty cycle: up to 300,000 images per month Connectivity: 10/100 BaseT Ethernet, Network printing, Accessories: mobile stand, appropriate finisher to make 2/4 hole punch, saddle-stitch booklet maker, V-fold, Sorting and stapling	1			
10	Multimedia (DLP) Projector 3000-5000 Lumen, wide screen 1080p(1920x1080) native resolution, Lamp life upto 8000 Hrs and High contrast ration of 10,000:1 HDMI and VGA supported with roof installation kit	1			
11	**DSLR FX 24-Megapixels camera** with AFS 50mm lens, video recording. Memory card 128Gb class 10 SD/XC U1. Two batteries. Camera case, strap and tripod (Maximum Height: 57.5") with case	1			

Technical Evaluation Criteria for Cat: B
(Supply, Installation and Testing of Servers, Storage, Security Devices, Extension of Alcatel OmniPCX PABX, Computers & Accessories)

Sr. #	Description	Marks of Eligibility	Marks Obtained
1	Only authorized Distributor / Tier1 / Gold partner of principle can participate in this Section (**documentary proof is mandatory**)	30	
2	Company Must be ISO 9001 certified	5	
3	100% Technical Compliance Quoted Solution as per BOQ.	10	
4	Past Experience in minimum 5 similar projects(Please attach copies)preferable in education sector. 2 Marks for each project.	10	
5.	At least 5 Certified Engineers from principal. 2 point for each certification. (Certification attached)	10	
6.	AnnualTurnOvershouldbeatleast100Mor above in last three years. Please submit the audit reports. For 100 million & more – 10 points Between 50 to 99 million – 5 points Less than 50 million – 1 point	10	
7	The Company must be registered with Sales Tax, Income Tax & Sindh Revenue Board departments and should be active tax payer. GST, SRB and NTN must be registered with the name of the firm not with individuals.	5	
8	Tax returns of last 3years.	5	
9	The Company must have atleast 4 offices in Pakistan.(provide contact addresses) One point for each office.	5	
10	An affidavit to the effect that the firm has not been blacklisted by any Government/Semi Government organization.	10	

Cat: C
(Supply and Installation of Data Centre Internal Connectivity, Power, cooling system & UPS)

STABILIZER

S.No.	Description	Qty	Unit Price	Total	Total Price with TAX
1	100 KVA, three phase, input range 300 to 440v 50-60 Hz, bypass auto/manual operational, overload/short circuit control	1			

MECHANICAL WORKS

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Supply of Tempered Glass Partition 12mm with door and vacuum door closer for Data Center	190	SQFT			
2	Supply of PPRC pipe for humidifier water supply size25mm OD with valves, accessories, Trunking and supports complete in all respect.	100	RFT			
3	Supply of UPVC pipe for condensate drain size 1″ dia with insulation where necessary, Trunking and supports complete in all respect	250	RFT			
4	Anti-static flooring and roof color for DATA CENTER, Power and UPS ROOM	500	SQFT			

ELECTRICAL WORKS

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Supply and Install of Main Panel (Data Center DB):	1	Each			
	Input Section					
	MCCB 125A TP Input Breaker	1	Each			
	Output Section					
	MCCB 60A TP MCCB Breakers for UPS Input	2	Each			
	MCCB 60A TP MCCB Breaker for Manual Bypass	1	Each			
	MCB 32A SP MCB Breaker for Non-Critical UPS	1	Each			
	MCCB 60A TP MCCB Breakers for CRVs	2	Each			
	MCB 20A SP MCB Breakers for Comfort Acs	6	Each			
	MCB 10A SP MCB Breakers for Lighting & Power Ckts	8	Each			
	Energy Analyzer + LED	1	Each			
2	**UPS Output Critical DB**	1	Each			
	Input Section					
	MCCB 60A TP MCCB Breakers	2	Each			
	4 Pole Manual bypass for change over	1	Each			
	Output Section					
	MCB 32A SP MCB Breaker for Racks	12	Each			
	MCB 32A SP MCB Breaker for Spare	4	Each			
	MCB 10A SP MCB Breaker for for Fire Supp, A/S,T/B	6	Each			
	Digital Voltage and Ampere Meter with LED indications	1	Each			
3	**UPS Output Non-Critical DB**	1	Each			
	Input Section					
	MCCB 60A TP MCCB Breakers	2	Each			
	4 Pole Manual bypass for change over	1	Each			
	Output Section					
	MCB 32A SP MCB Breaker for Racks	12	Each			
	MCB 32A SP MCB Breaker for Spare	4	Each			
	MCB 10A SP MCB Breaker for for Fire Supp, A/S,T/B	6	Each			
	Digital Voltage and Ampere Meter with LED indications	1	Each			

ELECTRICAL CABLING (technical specification at Annexure-VI)

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	1 x 4C x 50sqmm PVC/PVC Cable from ATS	50	Meter			
2	1 x 1C x 25 sqmm XLPE/PVC Cable on Cable Tray	50	Meter			
3	ECB for Data Center	1	Meter			
4	1 x 4C x 16sqmm PVC/PVC Cable on Cable Tray CRV / UPS	85	Meter			
5	1 x 1C x 10sqmm PVC/PVC Cable on Cable Tray	85	Meter			
6	3 x 1C x 4sqmm PVC/PVC Cable on Cable Tray	450	Meter			
7	3 x 1C x 2.5sqmm PVC/PVC Cable on Cable Tray Lighting	810	Meter Meter			
8	3 x 1C x 6sqmm PVC/PVC Cable on Cable Tray Rack	500	Meter			
9	Industrial Plug Sockets 32A 3-Pin for Racks	12	Each			
10	Industrial Plug Sockets 32A 3-Pin for Non critical UPS	2	Each			
11	Technology Box with 1 Raw, 1 UPS and 1 Data	9	Each			
12	Switch board for lighting	10	Each			
13	switch sockets for Cameras and access control	13	Each			

Earthling / Grounding						
14	Copper Rod 3/4" x 10' Solid Boring till 30-50ft Thimbles 1 35mm bare S/C till ECP on Pit Cover Bus Bar 300mm x 150mm x 2mm Pipe with complete accessories Earthling Chemical + Salt + Coal (Earth Chemical)	1	Each			

DATA & ELECTRICAL CABLE RACEWAY SYSTEM

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Supply of Metal Steel perforated cable tray with top cover above powder coated 8x4 cable routing system for Power / Data cables.	220	RFT			
2	Supply of Metal Steel perforated cable tray with top cover above powder coated 10x4 cable routing system for CAC	80	RFT			

ACCESS CONTROL SYSTEM

1	Finger Print + Card Reader + Pin Code Reader – Access Control System - for 1000 Users - Reading time 1 seconds - TCP/IP Based System - RS232 Connectivity - LCD Screen - Built in Access Control System. ZK access or equivalent	8	Each			
2	Electromagnetic Lock/ Bolt Lock	8	EACH			
3	Infrared / push button	6	EACH			
4	RFID card	30	EACH			
5	Uninterrupted power supply.	6	EACH			
6	LAN / Power Cabling	1	EACH			

30KVA UPS

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Libert NXR 30kVA (U) 380/400/415V 50/60Hz UPS (Technical Details on Annex-VI)	2	Each			
2	SNMP SIC Card	2	Each			
3	Battery Temperature sensor (Field fit option)	2	Each			
4	Parallel Cable for NXR	2	Each			
5	External Battery Cabinet 32X65AH(Black)	2	Each			
6	UPS 12V x 65AH Dry Maintenance Free Battery Single string of 30 Batteries	60	Each			
7	UPS Battery Bank Power Installation Kit	2	Each			
8	MCCB,160A,4P,50kA, w/o accessories	2	Each			
9	Startup & Commissioning (Without Any Material)	2	Each			

COMFORT AIR CONDITIONING SYSTEM							
1	Supply of 4 Ton Floor Mount Unit for Data Center (Mitsubishi or Eq:)	3	Each				
2	4 Ton copper Piping and installation kit complete		Job				

SERVER & COMMUNICATION RACK & BLANKING PANEL							
1	Rack 42U 600X 1090 C/W Perforated doors with lock and key ;Split side panels ; EIA mounting rails ; leveling feet ; color black ; Curved front door.	6	Each				
2	Rack 42U 800X 1090 C/W Perforated doors with lock and key ;Split side panels ; EIA mounting rails ; leveling feet ;color black ; Curved front door.	1	Each				
3	1U Blanking Panel	30	Each				
4	2U Blanking Panel	20	Each				

RACK POWER DISTRIBUTION UNIT (PDU) & LTS							
1	Rack basic PDU: 16A IEC309, 20 way C13 + 4 way C19, Black; Vertical Mount	4	Each				
2	Rack basic PDU: 32A IEC309, 20 way C13 + 4 way C19, Black; Vertical Mount	10	Each				
3	LTS, Load Transfer Switch 16A	2	Each				

KEYBOARD VIDEO MOUSE SWITCH (KVM)							
1	AutoView 3008 digital KVM appliance, one digital port with local port, 8 target devices, ID/VN/PK plug	1	Each				
2	18.5 LCD, USB KB, 2USB PASS, 8P	1	Each				
3	(USBIAC-10) Integrated Access Cable Cat5 - USB, 10 ft	8	Each				
4	42" LED for NMS, with HDMI and VGA support brand Samsung/Sony/LG	1	Each				

ENVIRONMENTAL MONITORING SYSTEM						
S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Large Enterprise Environment Monitoring System 5DSensors supported:5 external configurable sensors, 2 output relays5 digital inputs, Linux inside User-programmable IP camera snapshots	1	Each			
2	Temperature/Humidity Combination Sensor	4	Each			
3	Air Flow Sensor	2	Each			
4	Liquid Detection Sensor, Rope-Style - Length of water, sensor cable - 10, ft. Length of 2-wire cable - 10/20/50/100 f	2	Each			
5	SMS Module	1	Each			

IP SURVEILLANCE & MONITORING SOLUTION						
1	IP HD Bullet IR Camera 2MP resolution with built in SD card provision Focus day & Night with auto Mechanical IR file (night vision)	5	Each			
2	HD mini Dome camera with 2 MP resolution with optical audio and built in microphone	2	Each			
2	8-Port Fast Ethernet PoE Desktop Switch	1	Each			
3	2 Bay NVR Basic for IP Cameras Only	1	Each			
4	Wiring for Camera	1	Job			
5	3-TB SATA HDD for recording	2	Each			
6	LED TV 40" Samsung/Sony with HDMI cord cabling & complete fitting	2	Each			

FIRE SUPPRESSION SYSTEM FM-200 SOLUTION

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	**Fire suppression systems for data center.** • Conventional Extinguishing Area Control Panel • Smoke detector with base • Manual pull station • abort switch • Horn / Strobe • 6" fire alarm bell • Gas container & actuator • 360 degree discharge nozzle • Caution sign (do not enter) • Mechanical fitting with MS schedule 40 high pressure piping and accessories as per FM 200 piping standards. Wiring for system components with 2x1.5sq.mm PVC wires in 20mm dia PVC conduit and as required complete with junction box and all accessories.	1	Each			
2	**Fire suppression systems for UPS & Power Room** • Conventional Extinguishing Area Control Panel • Smoke detector with base • Manual pull station • abort switch • Horn / Strobe • 6" fire alarm bell • Gas container & actuator • 360 degree discharge nozzle • Caution sign (do not enter) • Mechanical fitting with MS schedule 40 high pressure piping and accessories as per FM 200 piping standards. Wiring for system components with 2x1.5sq.mm PVC wires in 20mm dia PVC conduit and as required complete with junction box and all accessories.	1	Each			
3	Fire Extinguisher 6KG ABC DCP	5	Each			

RACK TO RACK CONNECTIVITY PASSIVE SOLUTION

1	Cable Manager Panel, Horizontal Finger Duct, Single-sided, 2U (3.50 in) x 19.0 in	2	Each			
2	Cable Manager Panel, Horizontal Finger Duct, Single-sided, 1U (1.75 in) x 19.0 in	5	Each			
3	Category 6 (CAT6) 24 AWG solid bare copper, 4-pair UTP cable, exceed TIA/EIA-568-B.2-1 and ISO/IEC11801:2002 Class E, IEC61156-5, IEC60332-1-2, EN50288-6-1 and EN50173-1 Standard 305m Box	3	Each			
4	Patch Panel (modular) Enhanced cat-6 24x port including I/Os3M/Schneider/Panduit 1U black color	2	Each			
5	Cat 6 RJ 45 to RJ 45 Patch Cable, UTP,PVC, 1M	40	Each			
6	Cat 6 RJ 45 to RJ 45 Patch Cable, UTP,PVC, 3M	40	Each			
7	Labeling, Testing & Other Accessories	1	Each			

Technical Evaluation Criteria for Cat: C
(Supply and Installation of Data Centre Internal Connectivity, Power, cooling system & UPS)

Sr. #	Description	Marks of Eligibility	Marks Obtained
1	The bidder Past Experience in relevant projects (attach copies) **One Project is Mandatory** 2 points for each project	10	
2	The bidder will submit scope of work with all the High level / Low level Designs including power, connectivity, cooling, Complete Document. **Mandatory**	50	
3	Atleast1 Certified personals for the Data Center Certified Professional - CDCP (attach copies).	10	
4	Annual Turn Over should be atleast 100 Million or above in last three years. Please submit the audit reports. For 100 million & more – 10 points Between 50 to 100 million – 5 points Less than 50 million – 1 point	10	
5	The Company should be ISO certified	5	
6	The Company must have atleast 3officesinPakistan.(Provide contact number & address for verification). 1 point for each office. 5 for three offices	5	
7	The bidder must be registered with Sales Tax, Income Tax departments and should be active tax payer. GST and NTN must be registered with the name of the firm not with individuals.	5	
8	Tax returns of last 3 years.	5	

Cat: D Prime Power 80KVA GENERATOR WITH ATS SYSTEM

S.No.	Description	Qty	Unit	Price	Total Price	Total Price with TAX
1	Prime power 80KVA Diesel Generator 400 V, 50 HZ, 0.8 PF With Complete engine with Canopy include installation, Generator Pad Fabrication, transportation &crane lifting charges included. 1 year onsite warranty Brand Cummins, Siemens or Equi: (Engine Should be European or USA)	1	Each			
2	ATS system	1	Each			
3	Power cabling b/w Gen to DB	1	Each			

Annex-VII   Technical Compliance Certificates/Compliance Undertaking

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

(Name); (CNIC#); (Designation), (Company Name) have gone through the
Terms/Conditions of this RFP I hereby undertake and firmly bound myself to abide
by/comply all sections of this RFP except for those items noted below.

1

2

3

4

5

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7

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9

10

Signature   _____

Name

Designation   _____

Company   _____

Date

Name of Company:

_____

Date: _____

Apply for (please check appropriate box)

	Cat:	Name of Work
	A	Supply, installation and testing of Network Active and Passive Equipment.
	B	Supply, installation and testing of Servers, Storage, Security devices, Computers and Accessories
	C	Supply and installation Data Center Internal Connectivity, Power, Cooling System and UPS
	D	Diesel Generator 80 KVA

Signature: _____

Designation: _____