Tender Fee: Rs. 5000/-.
(Non-Refundable)

Tender # IT/12/19-20

Provision of Core Network Up-gradation

Date of Issue : **February 25, 2020**

Last Date of Submission : **March 11,2020 (3:00 PM)**

Date of Opening of Tender : **March 11,2020 (3:30 PM)**

Company Name:_____

Name of Representative _____

Amount in Foreign Currency (C&F). _____, SBPs selling

Rate of Exchange Seven Days before Opening of Bids _____, Converted

Amount in PKR_____, Dated: _____

Bid Security Pay Order Number:_____,

Bid Security Pay Order Dated:_____,

Bid Security Amount:_____

C O N T E N T S

1. __Introduction:__

Dear Bidder:

Thank you for your interest in participating in IBA tender "Provision of Core Network Up-gradation". The advertisement will be available on IBA & SPPRA websites and leading newspapers on February 25, 2020.

The Institute of Business Administration, Karachi (IBA) is the oldest business school outside North America. It was established in 1955 with initial technical support provided by the Wharton School of Finance, University of Pennsylvania. Later, the University of Southern California (USC) set up various facilities at the IBA & several prominent American professors were assigned to the IBA. The course contents, the curriculum, the pedagogical tools & the assessment & testing methods were developed under the guidance of reputed scholars from these two institutions. IBA has zealously guarded the high standards & academic traditions it had inherited from Wharton & USC while adapting and adjusting them with the passage of time.

We expect best services provided by you for this procurement.

Please contact Sr. Manager Procurement & Stores for any further information or queries. The contact details of the Sr. Manager Procurement & Stores is as follows:

Muhammad Sohail Khan
Sr. Manager Procurement & Stores
38104700 ext: 2151
Email: mskhan@iba.edu.pk

Sincerely,

-sd-

Registrar

2. **Instructions:**

(a) **Sign & Stamp**

The Institute of Business Administration, Karachi (IBA) expects that aspirant bidder contactor manufacturers / firms / Bidder / companies / distributors / dealers should furnish all the required documents to ensure a transparent and genuine presentation. Therefore, it is necessary to fill in the Tender Form meticulously and sign & stamp each and every page. Moreover, attach required supporting document according to the requirement. The tender document will be accepted ONLY on the IBA's prescribed Tender Document available on IBA's Website. Any overwriting / crossing etc. appearing in the offer, may be properly signed by the person signing the tender.

(b) **Filling of Tender Form**

It is of utmost important to fill in the Tender Form in writing in ink or type. Do not leave any column/item blank. If you want to leave the item/column un-answered please, write 'Doesn't Apply/Doesn't Arise'. If you need more space please attach a paper & clearly mention item/column name or number etc that referred the column/item of the Tender Form.

(c) **Collection of Tender**

You can collect the Tender Document from the office of Sr. Manager Procurement & Stores, Ground Floor, Fauji Foundation IBA Main Campus, University Road, Karachi from February 25, 2020 to March 11, 2020 during working 9:00 AM to 3:00 PM.

(d) **Submission of Tender**

The last date of submit the Tender Document in sealed envelope in March 11, 2020 by 3:00 PM in the Office of the Sr. Manager Procurement & Stores, Ground Floor, Fauji Foundation IBA Main Campus, University Road, Karachi. The Tender will be opened on same day at 3:30 PM in the presence of representatives who may care to attend.

(e) **Bid Security**

Bid Security of 2% (converted amount in PKR) of total charges will be submitted along with Tender Documents in shape of PAY ORDER / DEMAND DRAFT only in the name of Institute of Business Administration. Bid Security should be enclosed in a separate envelope, labelled as 'Bid Security, and which should be sealed. Proof of Sales Tax registration and NTN numbers should also be provided. (Please provide photocopies of relevant documents).

(f) **Performance Security**

Successful bidder should provide 5% (converted amount in PKR) Performance Security of total value of Purchase Order / Work Order in the form of Pay Order or bank guarantee along with Order Confirmation.

The Performance Security shall extend at least three months beyond the Date of Delivery/Completion of work / Contract.

_____

Stamp & Signature

(g) Bid Price

Bid Price should include the following

    i.   Cost & Freight of Goods
    ii.   Insurance charges
    iii.   Charges for Custom Clearance at Karachi Port
    iv.   Sellers LC charges

(h) Letter of Credit (LC)

LC charges (client-side) and Import Duties & Taxes (where applicable) will be borne by IBA, Karachi. However, the successful bidder will pay import duties & taxes and bill separately to IBA as reimbursable expenses upon presentation of proof of payment.

(i) Name & Address of Principal/Authorized Distributer

Bidders should clearly indicate the name and full address of their principals/authorized distributor in whose favour LC shall be opened. In case of distributer, the authorization certificate from Principal for specific bid shall be obtained.

(j) Bidder's Responsibility

Bidder shall be responsible for transportation of complete consignment to IBA, Karachi premises. This would include cost of labour for unloading consignment to the designated warehouse. Labour will be provided by the bidder.

(k) Tender Number

Please mention "Tender Number" at top left corner of the envelopes. IBA, Karachi may reject any bid subject to relevant provision of SPP Rules 2010 and may cancel the bidding Process at any time prior to acceptance of bid or proposal as per Rule-25(i) of said rules.

(l) Communication

Any request for clarification regarding technical specification should be submitted <u>in writing</u> to:

Contact Person (IBA):		M. Sohail Khan
		Senior Manager Procurement
		Institute of Business Administration,
		Main Campus, University Road,
		Karachi
Tel #	:	111-422-422 Ext 2151
Email	:	mskhan@iba.edu.pk

_____
Stamp & Signature

(m) Submission of Documents and Address

Separate envelopes clearly labeled for 'Original Document', 'Copy' and 'Bid Security' must be submitted on or before last date to submit the tender documents. Tender Document can be dropped by hand or courier in Tender Box placed at the office of Sr. Manager Procurement & Stores, Ground Floor, Fauji Foundation IBA Main Campus, University Road, Karachi by the last date indicated for submission. **Tender Document received by fax or email will not be accepted.**

(n) Submission of Tender

The complete tender document should be submitted by 3:00 PM on March 11, 2020 at the office of Sr. Manager Procurement & Stores, Ground Floor, Fauji Foundation IBA Main Campus, University Road, Karachi

The manufacturer/firms/companies/distributors/Bidders shall deliver two copies of the bids which include IBA tender documents.

(o) Date of Opening of Tender

Bid will be opened on March 11, 2020 at 3:30 pm at Office of the Sr. Manager Procurement & Stores IBA Main Campus in presence of representative bidders who may care to attend.

(p) Rights

Competent authorities reserve the rights to accept or reject any bid as per prevailing SPP Rules.

(q) Mode of Deliveries

Supply will be delivered at IBA Store Main Campus University Road Karachi within 12 weeks of establishment of LC.

(r) Clarification / Proof

Please submit copies of certificates of registration with Sales Tax and Income Tax departments. The manufacturer /firms/companies /distributors/ Bidders should also provide copy (ies) of certificate(s) etc as proof of their claim.

_____

Stamp & Signature

3. <u>**Bidding Data:**</u>

(a) Name of Procuring Agency

Institute of Business Administration, Karachi

(b) Brief Description of procurement

Provision of Core Network Up-gradation

(c) Procuring Agency's address

Main Campus, University Road, Karachi

(d) Amount of Bid Security

Bid Security of 2% (converted amount in PKR) of total amount/cost will be submitted along with Tender Documents in shape of PAY ORDER / DEMAND DRAFT only in the name of Institute of Business Administration, Karachi

(e) Period of Bid Validity (days)

One Hundred and Twenty Days Bidders are asked to quote validity period of quotation on authority letter of OEM. However, at least 90 days validity after the opening date of bid is required.

(f) Deadline for Submission of Bids along with time

The last date of submit the Tender Document in sealed envelope on March 11, 2020 by 3:00 PM in the Office of the Sr. Manager Procurement & Stores, Ground Floor, Fauji Foundation IBA Main Campus, University Road, Karachi. The Tender will be opened on same day at 3:30 PM in the presence of representatives who may care to attend.

(g) Venue, Time, and Date of Bid Opening:

Tender will be opened on March 11, 2020 on 3:30 PM at IBA Main Campus, University Road, Karachi.

(h) Delivery Period:

8 to 12 weeks from the LC establishment

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Stamp & Signature

(i) Liquidated damages

In the event of delay in delivery at supplier fault, the supplier shall inform the purchaser before expiry of such period giving reasons or justification for delay. However, purchaser reserves the right to take following actions:

 i. Evaluate the request for extension in delivery period as per its merit and may consider extension in delivery period or otherwise.
 ii. May cancel the contract.
 iii. Liquidated damages (if imposed) will be recovered at the rate of up to 2% per month and shall not exceed 10% of the total value of the contract.

(j) Document to Submit

 i. Income & Sales tax, and SRB certificates along with the record of GST deposited in the last one year.
 ii. Company profile.
 iii. Bank statement of last 3 Years.
 iv. Relevant experience of last 3 years
 v. Clientele list where subject supply provided in last 5 years (where required).
 vi. Quality Certification (if any).
 vii. OEM Authority letter (where required).
 viii. Non-black listing record certificate of Notary Public on Stamp Paper.

(k) Contract Agreement

Contract Agreement shall be assigned to the successful bidder on Stamp Paper comprising stamp duty of **0.35%** (converted amount in PKR) of total value of Bid offered in response to the tender. Stamp duty will be paid by the bidder.

Deposit Receipt No: Date: Amount:(in words and figures) **Pay Order / Demand Draft**

 # ………………, Amount: PKR……………Drawn on Bank: ………… Dated: ……….

<div align="right">

_____
Stamp & Signature

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4. <u>Terms & Conditions:</u>

a) Currency
All currency in the proposal shall be quoted in Foreign currency. For the purpose of comparison of bids quoted in different currencies, price shall be converted into a single currency specified in the bidding documents. The rate of exchange shall be the selling rate prevailing seven working days before the date of opening of the bids specified in the bidding documents, as notified by the State Bank of Pakistan;

b) Terms of Payment
   i.   All payments will be made through LC in the name of Principal / authorized distributor
   ii.   70% of LC Value will be released on arrival at Karachi Port (LC at sight).
  iii.   Remaining 30% of LC value will be released on issuance of Acceptance Certificate after delivery of goods at IBA, Karachi premises.

c) Source and Nationality Requirements:
The country for this procurement is Pakistan. Bidder may not offer or supply any commodities or services that are manufactured or assembled in, shipped from, transported through, or otherwise involving any of the country i.e., INDIA & ISRAEL.

d) Shipping/Dispatch Instructions
Shipping will be made by the supplier preferably through the National Vessel/Airline. Shipment by INDIA nor ISRAELI Vessel/Airline is not allowed.

The partial shipment of stores shall not be allowed; the complete stores will be shipped as one consignment.

e) Inspection/Testing
Senior Manager Procurement & Stores in coordination of technical department will inspect the items as per specifications after arrival at Stores and will carry out necessary testing of equipment and render a Certificate of Correctness.

Material of this order is subject to final inspection from Competent Authority Technical Team at the time of delivery.

f) Ownership
The ownership of all products and services rendered under any contract arising as a result of this tender will be the sole property of IBA, Karachi.

g) Secrecy & Confidentiality
All stakeholders will be responsible to maintain secrecy/ confidentiality of information /Data shared during all stages of Bidding/ Contract.

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Stamp & Signature

h) Arbitration and Governing Law

This tender and any contract executed pursuant to this tender shall be governed by and construed in accordance with the laws of Pakistan. The IBA and all Manufacturer / firms / companies / distributors / Bidders responding to this tender and parties to any contract executed pursuant to this tender shall submit to the exclusive jurisdiction of the Pakistani Courts. The arbitration proceeding will be governed by the Arbitration Act, 1940, and the substantive and procedural law of Pakistan. The venue shall be Karachi.

i) Packing & Transportation

All Equipment shall be individually packed in standard packing provided by the manufacturer for onwards transportation and delivery. Any item damaged during transportation will be replaced by the bidders at their own cost.

j) Cancellation

IBA reserves the right to cancel any or all of the above items if material is not in accordance with its specifications.

k) Default

If the Bidder fails to timely deliver items/services as per BoQ , IBA, Karachi reserves the right to penalize and may also terminate the contract.

l) Tool Kits/Accessories

Standard sets of General toolkit/ accessories supplied with equipment shall be provided by the successful bidder with no additional cost.

m)   Performance Security

Successful bidder should provide 5% (converted amount in PKR) Performance Security of total value of Purchase Order in the form of Pay Order or bank guarantee at the time of contract. The Performance Security shall extend at least three months beyond the date of warranty period.

n) Force Majeure

The Supplier shall not be held liable in the event of their failure to comply with the delivery schedule of the ordered items(s) for reasons of Force Majeure including to war and other instabilities invasion, act of foreign enemies, embargo, civil war etc.

o) Increase in Price

No increase in the value of above-mentioned items will be accepted on account of either unit price, total price, any or all other charges, duties, taxes, scope of supply and or any other head of account shall be allowed.

_____
Stamp & Signature

p) Invoice

Invoice / bill should be submitted to Purchase & Store Department.

q) Stamp Duty

Stamp duty 0.35% (converted amount in PKR) against total value of Purchase Order will be levied accordingly and born by the successful bidder.

_____
Stamp & Signature

5. **Integrity Pact:**

Declaration of Charges, Fees, Commission, Taxes, Levies etc. payable by the Bidder;

M/s. _____, the Bidder hereby declares that:

(a)   Its intention not to obtain the Provide & Supply work of any Contract, right, interest, privilege, or other obligation or benefit from the IBA or any administrative or financial offices thereof or any other department under the control of the IBA through any corrupt practice(s).

(b)   Without limiting the generality of the forgoing the Bidder represents and warrants that it has fully declared the charges, fees, commission, taxes, levies etc, paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within the IBA directly or indirectly through any means any commission, gratification, bribe, gifts, kickback whether described as consultation fee or otherwise, with the object of obtaining or including the Provide & Supply or service contract or order or other obligations whatsoever from the IBA, except that which has been expressly declared pursuant hereto.

(c)   The Bidder accepts full responsibility and strict liability for making any false declaration/statement, not making full disclosure, misrepresenting facts or taking any action likely to degrade the purpose of declaration, representation and warranty. It agrees that any contract/order obtained aforesaid shall without prejudice to any other right & remedies available to the IBA under any law, contact, or other instrument, be stand void at the discretion of the IBA.

(d)   Notwithstanding any right and remedies exercised by the IBA in this regard, Bidder agrees to indemnify the IBA for any loss or damage incurred by it on account of its corrupt business practice & further pay compensation to the IBA in any amount equivalent to the loss of any commission, gratification, bribe, gifts, kickback given by the company/firm/Bidder/agency/bidder as aforesaid for the purpose of obtaining or inducing Provide & Supply/work/service or other obligation or benefit in whatsoever from the IBA.

Note:
This integrity pact is mandatory requirement other than auxiliary services / works.

_____
Stamp & Signature

Bill of Quantity (As Single Job)

Provision of Core Network Up-gradation

S. No	Make and Model	C&F Bid Value (Foreign Currency)	Conversion Rate (Selling Rate of Exchange announced by SBP seven days prior to the opening of Bids)	Bid Value in PKR	Qty	Total Bid Value (PKR)
1	Core Switch				1	
2	Server Farm Switch				2	
3	POE Access Switch				20	
4	Internet Router				2	
5	Internet Firewall				2	
	DC Firewall				2	
6	Centralized Management, Monitoring & Reporting				1	
7	Voice Gateway Routers				2	
Total Amount C&F Value (please refer to "**instruction**" clause "**g**")						

Annex-A

Technical specifications

S.No.	Technical specifications	Compliance (Yes\NO)
1	**Core Switch – (Qty: 1)**	
	The proposed core switch should include at least 48 x 1/10 SFP+ Ethernet L3 ports	
	The proposed core switch should include at least 48 x 1G/10G RJ-45 copper Ethernet L3 ports	
	The proposed core switch should include at least 24 x 40G QSFP+ ports	
	The proposed core switch should have at least 1 x I/O slots available for future expansion.	
	The core switch should have redundant control/supervisor cards with dedicated slots and should not use I/O slots.	
	The proposed switch should have redundant AC power supplies (N+1).	

	The switch should have redundant switch fabrics with stateful switchover.	
	Should support major layer 3 protocols like OSPF, BGP, IS-IS etc. Any license required should be part of the proposal.	
	The Core switch shall support switching fabric capacity of minimum 15 Tbps & forwarding rate of more than 7 bpps or higher.	
	Proposed switch should support line rate processing for all the interfaces.	
	The core switches should support minimum 3 Tbps per slot	
	The core switch should support SDN architecture with option to configure the components from centralized SDN controller if required in future.	
	Must support advanced dynamic Routing Protocol and advanced QoS features	
	There should not be any head of line blocking architecture to avoid any packet loss.	
	Should support industry standards like VXLAN and be able to terminate VXLAN for VLAN interoperability. Any license required for VXLAN should be part of the solution.	
	The proposed switch must support ISSU (In Service Software Upgrade)	
	The proposed switch should provide Non Stop Forwarding during supervisor switchover	
	The switch should have redundant fan trays and the fan trays should be hot swappable	
	Online insertion and removal (OIR) of all redundant components: Supervisor, fabric, power supply, and fan trays etc.	
	Should support features like SPAN and Ethanalyzers	
	Proposed hardware should support configuration management like "roll back" and Role Based Access Control	
	Should support standard Security features and protocols like Authentication, authorization, and accounting (AAA), Secure Shell (SSH) Protocol Version 2, Simple Network Management Protocol Version 3 (SNMPv3) support, Port Security and IEEE 802.1x authentication and RADIUS	
2	**(Server Farm Switch) – (Qty: 2)**	
	The proposed switch should have 48 x 1G/10G Base T RJ 45 Ports.	
	The switch should also have at least 4 x 40G QSFP28 Ports	
	All ports must be line-rate non-blocking	
	Should include Layer 3 features, including full OSPF, VXLAN, and BGP. Any license required should be part of the proposal	
	The switch should support below standards	
	IEEE 802.1Q: VLAN Tagging	
	IEEE 802.1s: Multiple VLAN Instances of Spanning Tree Protocol	
	IEEE 802.1D: Spanning Tree Protocol	
	IEEE 802.1p: CoS Prioritization	
	IEEE 802.3ad: Link Aggregation Control Protocol (LACP)	
	IEEE 802.1w: Rapid Reconfiguration of Spanning Tree Protocol	

		IEEE 802.1ab: LLDP	
		Should have dual redundant power supplies	
		Should have redundant hot swappable fans	
		Value Added Services: - (a) Bidder should provide 5 Days training on proposed solution for three ICT persons in Regional Authorized Training centre. (b) The successful bidder should arrange executive briefing sessions, encompassing all features and technical aspects, for ICT senior management on New technology trends, smart classrooms, IOT & SDN's at regional headquarter of the principal / manufacturer from their marketing budget.	
3		**PoE Access Switch (Qty: 20)**	
		The switch should have 48 x 1G PoE+ ports	
		The switch should have 4 x 10G SFP uplink ports	
		The switch should support more than 170Gbps switching capacity and at least 130 Mpps of forwarding rate	
		The switch should be stackable and should support at least 6 switches in a stack	
		The switch should support redundant power supply	
		Support for full layer 3 routing functionality (RIP, OSPF, Static, PBR)	
		Should support IEEE MacSec encryption	
		Support for NetFlow/Sflow or equivalent	
		The switch should provide features such as Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, QoS, 802.1X. Any license required should be part of the proposal	
		Fully managed switch	
		RADIUS and TACACS authentication	
		IEEE 802.3ad Link Aggregation Control Protocol (LACP)	
		Support at least 512 or higher ACL rules	
		SNMPv3	
4		**Internet Router – (Qty: 2)**	
		The proposed router should not be more 1 RU form factor since we have limited space available in the racks	
		Should have at least 2 x RJ45 GE + 2 x SFP WAN ports	
		Dual AC power supplies required	
		Proposed router should have at least 2 interface module Slots.	
		Proposed router must support a throughput of at least 2 Gbps or higher.	
		The router should support security features such as Firewall, VPN, ACL, IPSEC VPN etc.	
		The Router should support encrypted throughput of at least 500 Mbps	
		Proposed routers should have multi core processors for high speed WAN Connections	

	The proposed router should support advanced networking protocols such as L2TPv3, BFD, MPLS, VRF, VXLAN etc.	
	Proposed router should support features like SD-WAN and should be able to support SD-WAN by simply changing the software	
	Should support Layer 3 routing protocols including RIP, OSPF, IS-IS, BGP, PBR etc.	
	The router must support Overlay features like	
	L2TPv3	
	GRE	
	MPLS	
	Should support Online Insertion and Removal of interface modules	
	Proposed hardware should support QoS features like	
	CBWFQ	
	Performance Routing	
	WRED etc	
	Telnet	
	Simple Network Management Protocol Version 3 (SNMPv3)	
	Secure Shell (SSH)	
	RADIUS and TACACS+	
5	**Internet Firewall (Qty: 2)**	
	The firewall should be Next Generation Firewall	
	The proposed brand must be either in Challenger or Leader MQ of latest Gartner NGFW MQ	
	Required either 8 x RJ 45 GE + 4 x SFP 1G Ethernet ports or 8 x GE Combo Ethernet ports	
	Required NGFW + NGIPS throughput more than 2 Gbps (1024B Packet) with all features enabled	
	Required maximum concurrent sessions at least 400,000 with Application Visibility and Control enabled	
	Should support more than 21,500 new connections per second with Application Visibility and Control enabled	
	More than 1 Gbps of IPSEC VPN throughput	
	Should support local as well as centralized management	
	AC power supply	
	The proposed firewalls solution shall be capable of detecting link failure in addition to device failure	
	The proposed firewalls shall support standards based link aggregation (IEEE 802.3ad) to achieve higher bandwidth	
	NGIPS with full contextual awareness of users, infrastructure, applications, and content to detect multi-vector threats	
	Required granular Application Visibility and Control with support for more than 4,000 applications.	

	Required URL Filtering with support for more than 120 Million URLs categorized and more than 80 URLs categories.	
	Detection of Geo location of IP Addresses	
	The firewall should support SSL decryption to enforce NGIPS & NGIPS policies	
	The firewall should support SSL decryption of the published web servers using the certificate server of the servers and applying the layer 7 policies	
	The firewall should support rate-limiting traffic on the basis of users, applications etc.	
	Identify and control applications on any port, not just standard ports (including applications using HTTP or other protocols)	
	Provide application function control	
	Identify and control applications sharing the same connection	
	Fine-grained visibility and policy control over application access / functionality	
	Integrate with Microsoft Active Directory Server for implementing user based application access control	
	Support creation of security policy based on AD Users and Groups in addition to source/destination IP	
	Support AAA, RADIUS, SNMP	
	Support detection and prevention against tunnel /encapsulated /encrypted attacks, p2p application related threats	
	Protect against IP and TCP fragmentation related attacks	
	Support creation of user-defined application protocol detectors	
	File control - detect and block users from uploading (sending) or downloading (receiving) files of specific types over specific application protocols.	
	The solution must have content awareness with comprehensive file detection policies and blocking of files by types, protocols and directions.	
	Protocols: FTP, HTTP, SMTP, IMAP, and POP3	
	Direction: Upload, Download, Both	
	File Types: Office Documents, Archive, Multimedia, Executable, PDF etc.	
	Automated threat feed and IPS signature updates	
	Automated threat correlation	
	Support policy control by port and protocol, application, user/group, IP address, IPV6 rules/objects and multicast rules/objects etc.	
	Allow administrators to create custom IPS signatures	
	When an IPS signature is matched, the following configurable actions can be automatically taken:	
	Detailed attack logging with hyperlink to IPS encyclopedia references	
	SNMP traps	
	Packet logging for forensic studies	
	Pass, block or reset TCP sessions	

	Analyzes files at point of entry to catch malwares, block malwares in real-time using one-to-one signature matching or machine learning/AI etc.	
	Support network traffic classification application identification across all ports	
	Provide multiple mechanisms for classifying applications and application identification technology based upon Intrusion Prevention System (IPS) or deep packet inspection.	
	Provide the ability to allow the organization to create customized application rules	
	Have searchable list of currently identified applications	
	Accurately classify traffic based on application (example: Gmail or Facebook etc.)	
	Be able to create filters to control groups of application based on category, sub category, technology, risk or characteristics etc.	
	Support user-identification allowing AD, LDAP, RADIUS groups, or users to access a particular application, while denying others	
	Web based on-box Management/GUI administration	
	Proposed Firewalls solution must be centrally managed from Web-Based Graphical User Interface (GUI)	
	SNMP,SYSLOG and Netflow or equivalent	
	The proposed firewalls shall have a reporting management system capable of generating reports on a manual ad-hoc or schedule (daily, weekly, monthly, etc) basis.	
	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, Security Information and Event Managers (SIEMs), systems management platforms, and log management tools.	
	The solution should be able to send alert messages at least through Console Alerting or Email mechanism	
	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to export SNMP information to network management systems.	
	Three Years Subscription required for all required features (NGW, NGIPS, Advance Malware Protection, and ULR Filtering)	
6	**DC Firewall (Qty: 2)**	
	The firewall should be Next Generation Firewall	
	The proposed brand must be either in Challenger or Leader MQ of latest Gartner NGFW MQ	
	Required either 8 x RJ 45 GE + 4 x SFP 1G Ethernet ports or 8 x GE Combo Ethernet ports	

Required NGFW + NGIPS throughput at least 1.5 Gbps (1024B Packet) with all features enabled	
Required maximum concurrent sessions at least 200,000 with Application Visibility and Control enabled	
Should support at least 15,000 new connections per second with Application Visibility and Control enabled	
At least 2 Gbps of IPSEC VPN throughput	
Support at least 500 SSL VPN sessions.	
License for 100 SSL VPN must be included in the proposal.	
Should support local as well as centralized management	
AC power supply	
The proposed firewalls solution shall be capable of detecting link failure in addition to device failure	
The proposed firewalls shall support standards based link aggregation (IEEE 802.3ad) to achieve higher bandwidth	
NGIPS with full contextual awareness of users, infrastructure, applications, and content to detect multi-vector threats	
Required granular Application Visibility and Control with support for more than 4,000 applications.	
Required URL Filtering with support for more than 120 Million URLs categorized and more than 80 URLs categories.	
Detection of Geo location of IP Addresses	
The firewall should support SSL decryption to enforce NGIPS & NGIPS policies	
The firewall should support SSL decryption of the published web servers using the certificate server of the servers and applying the layer 7 policies	
The firewall should support rate-limiting traffic on the basis of users, applications etc.	
Identify and control applications on any port, not just standard ports (including applications using HTTP or other protocols)	
Provide application function control	
Identify and control applications sharing the same connection	
Fine-grained visibility and policy control over application access / functionality	
Integrate with Microsoft Active Directory Server for implementing user based application access control	
Support creation of security policy based on AD Users and Groups in addition to source/destination IP	
Support AAA, RADIUS, SNMP	
Support detection and prevention against tunnel /encapsulated /encrypted attacks, p2p application related threats	
Protect against IP and TCP fragmentation related attacks	
Support creation of user-defined application protocol detectors	

	File control - detect and block users from uploading (sending) or downloading (receiving) files of specific types over specific application protocols.	
	The solution must have content awareness with comprehensive file detection policies and blocking of files by types, protocols and directions.	
	Protocols: FTP, HTTP, SMTP, IMAP, and POP3	
	Direction: Upload, Download, Both	
	File Types: Office Documents, Archive, Multimedia, Executable, PDF etc.	
	Automated threat feed and IPS signature updates	
	Automated threat correlation	
	Support policy control by port and protocol, application, user/group, IP address, IPV6 rules/objects and multicast rules/objects etc.	
	Allow administrators to create custom IPS signatures	
	When an IPS signature is matched, the following configurable actions can be automatically taken:	
	Detailed attack logging with hyperlink to IPS encyclopedia references	
	SNMP traps	
	Packet logging for forensic studies	
	Pass, block or reset TCP sessions	
	Analyzes files at point of entry to catch malwares, block malwares in real-time using one-to-one signature matching or machine learning/AI etc.	
	Support network traffic classification application identification across all ports	
	Provide multiple mechanisms for classifying applications and application identification technology based upon Intrusion Prevention System (IPS) or deep packet inspection.	
	Provide the ability to allow the organization to create customized application rules	
	Have searchable list of currently identified applications	
	Accurately classify traffic based on application (example: Gmail or Facebook etc.)	
	Be able to create filters to control groups of application based on category, sub category, technology, risk or characteristics etc.	
	Support user-identification allowing AD, LDAP, RADIUS groups, or users to access a particular application, while denying others	
	Web based on-box Management/GUI administration	
	Proposed Firewalls solution must be centrally managed from Web-Based Graphical User Interface (GUI)	
	SNMP,SYSLOG and Netflow or equivalent	
	The proposed firewalls shall have a reporting management system capable of generating reports on a manual ad-hoc or schedule (daily, weekly, monthly, etc) basis.	

	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, Security Information and Event Managers (SIEMs), systems management platforms, and log management tools.	
	The solution should be able to send alert messages at least through Console Alerting or Email mechanism	
	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to export SNMP information to network management systems.	
7	**Centralized Management, Monitoring & Reporting: (Qty: 1)**	
	Appliance based Centralized security management console and database repository for event and policy management of NGFW, NGIPS, and Advance Malware Detection and Prevention	
	Centralized configuration, logging, monitoring, and reporting for NGFW, NGIPS and Advance Malware Detection and Prevention	
	Required Centralized Management for Minimum 10 NGFW Appliances	
	Automatically aggregate and correlate information generated by Next Generation Firewall, Next Generation and Advance Malware Detection	
	Provide full stack visibility including	
	Threats	
	Users	
	Web Applications	
	Client applications	
	Application protocols:	
	File transfers	
	Malware	
	CNC servers	
	Network servers	
	Server/host operating system	
	Mobile devices	
	Virtual machines	
	Role-based device user management	
	Customizable dashboard with custom and/or template-based reports	
	Correlation and remediation features for real-time threat response	
	Network behavior and performance monitoring	
	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, Security Information and Event Managers (SIEMs), systems management platforms, and log management tools.	

8	Voice Gateway Router : (QTY:2)	
	The proposed router should not be more 1 RU form factor since limited space is available in the racks	
	Should have at least 2 x RJ45 GE + 2 x SFP WAN ports	
	Proposed router should have at least 3 interface module Slots.	
	At least 2 of the interface slots should be empty for future expansion	
	Proposed router must support a throughput of at least 100 Mbps or higher.	
	The proposed router should support upgradation to at least 2 Gbps throughput by simply adding a license without any hardware addition.	
	The proposed router should include at least 4 x FXO interfaces	
	Proposed router provide voice gateway functionality and any license required should be part of the proposal	
	Should support at least 400 SIP/H.323 Sessions and any license required should be part of the proposal	
	Router should provide SIP trunk and should include licenses for at least 70 simultaneous SIP Sessions.	
	Should include at least 64 channel DSP module for handling voice traffic	
	Should support features to act as Call Control for IP Phones supporting at least 100 IP Phones	
	Should support at least 12 x E1/PRI Interfaces to support digital voice interconnections	
	The router should support security features such as Firewall, VPN, ACL, DNS Security, IPSEC, SSLVPN etc.	
	The Router Should support encrypted throughput of at least 500 Mbps	
	Proposed routers should have multi core processors for high speed WAN Connections	
	Should support Service Level Agreements (SLAs) for the monitoring of the WAN links	
	The proposed router should support advanced networking protocols such as L2TPv3, BFD, MPLS, VRF, VXLAN etc.	
	The routers should support features like Application Optimization to enhance end user experience by having some sort of caching etc. in case of low bandwidth WAN Links.	
	Should support WAN optimization features as below:	
	TCP Flow Optimization	
	Persistent LZ Compression	
	DRE Compression	
	Application Optimizations for file sharing, emails, web apps, enterprise apps etc.	
	Proposed router should support features like SD-WAN and should be able to support SD-WAN by simply changing the software	
	Should support SDN.	
	Should support Next Generation Encryption features as below.	

	AES-128-GCM for Authenticated Encryption	
	HMAC-SHA256 for Authentication	
	ECDSA-P256 for Digital Signatures	
	SHA-256 for Hashing	
	ECDH-P256 for Key Establishment.	
	Should support Layer 3 routing protocols including RIP, OSPF, IS-IS, BGP, PBR etc.	
	The router must support Over lay features like	
	L2TPv3	
	GRE	
	MPLS	
	Should have at least 4GB DRAM, with option to upgrade to 16GB.	
	Should have at least and 4GB Flash, with option to upgrade up to 16GB.	
	Should support Online Insertion and Removal of interface modules	
	Proposed hardware should support QoS features like:	
	CBWFQ	
	Performance Routing	
	WRED etc	
	Proposed router must comply with following standards	
	TIA-968-B	
	CS-03	
	ANSI T1.101	
	ITU-T G.823, G.824	
	IEEE 802.3	

Scope of Work:-

(c) Configuration, installation and implementation will be the responsibility of the Partner; however ICT Operation Team will be available to make the process rational.

(d) Partner would be responsible to provide three years warranty backed by principal, Support should include 24x7 Support direct from principal except for Access Layer Switches applied 8x5xNBD replacement support facility is acceptable.

(e) 24x7x4 Mission Critical Direct onsite engineering support for Core Switch, Server form switch, Internet Router, Internet Firewall, DC Firewall and Voice gateway router

(f) NBD Support for access layer switch.

(g) Transportation and labor inclusive

(h) Warranty should be fully backed by principal / manufacturer. Bidder must submit appropriate service agreement details / approval to guarantee required service level

_____
Stamp & Signature

Principal Criteria

a) Principal should have local presence in Pakistan
b) Principal should have local depot facility for instant RMA and should have the mechanism to provide replacement in Karachi as per the SLA matrix of acquired products.
c) Principal should have local onsite resources
d) Principal should have network deployments in five public sector universities of Pakistan.

Total Amount (C&F Foreign Currency)	

Total Amount **C&F Foreign Currency** *(in words)* _____

_____

To be filled by IBA, Karachi (as per clause 4(a))

Total Amount PKR (in words) _____

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_____
Stamp & Signature

6. **Bidder Qualification Criteria**

Only those bidders can apply in this tender who fulfil the mandatory criteria. Please attach supporting documents / evidence of your claim(s)

S. No.	Mandatory Eligibility Criteria (Attach Supporting Document)	Remarks Yes / No
1	Bidder must be an original equipment manufacturer (OEM) or an authorized agent/partner of principal in Pakistan	
2	Bid must be accompanied by Manufacturer's authorization letter from principal for Core Switch, Firewalls and Access layer Switches.	
3	Bidder has successfully completed at least three similar nature of projects in last three years	
4	At least one OEM "IE" & and one OEM "NP" level of certified resources on its permanent payroll	
5	Last 3 years' turn over with minimum 60 million (per year) as bank statement or financial statement.	
6	Bidder must provide "Sales tax registration certificate both FBR and / or SRB" and NTN certificates at the time of submission of bid.	

_____
Stamp & Signature

It is hereby certified that the terms and conditions have been read, agreed upon and signed.

Name of Representative _____

Contact Person_____

Address_____

Tel #_____Fax _____

 Mobile_____email_____

_____
Stamp & Signature