



Higher Education Commission, Pakistan

Invitation for Upgradation of HEC Local Area Network (LAN) Equipment

The Higher Education Commission (HEC) Pakistan invites sealed bids directly from firms of good repute registered with Income Tax, Sales Tax department For the Purpose of “**Upgradation of HEC Local Area Network (LAN) Equipment**” as mentioned in bidding document.

Bidding documents containing detailed terms and conditions, method of Selection, procedure for submission of bids, opening of bid, evaluation criteria, clarification/rejection of bids etc. is available for interested firms from Mr. Saria Saleem Malik Deputy Director (Networks) and Mr. Muhammad Ramzan Tariq (LAN Administrator), Price of the bidding document is **Rs. 1000/-** which can be paid to Mr. Adnan Ahmed Assistant at Account Section, Finance Division, Higher Education Commission, Sector H-9, Islamabad, Pakistan. Or deposit in HEC Account No. **IBAN PK38HABB0017427900133401** Habib Bank Ltd. Bidding documents can be downloaded from <http://www.hec.gov.pk> free of cost, however, interested Firms/Suppliers/Contactor will be required to have registered copy purchased from HEC, in order to participate in the tender process.

The bids, prepared in accordance with the instruction in the bidding documents, to be submitted by hand must reach at the below address on **Tuesday, June 28, 2022 before 1330 hours**. The bids sent through courier/by postal must reach one day before the opening of the bid on or before **Tuesday, June 28, 2022 at 1330 hours** to Mr. Saria Saleem Malik, Deputy Director (Networks), Auditorium Building No. 4, Room No. 7, Higher Education Commission, Sector H-9, Islamabad. The bids will be opened on the same day at **1400 hours** in the presence of bidders who choose to attend. The bidders should submit a bank draft (from the scheduled bank)/pay order of fixed amount Rs. 500,000/- accompanying the bid in a sealed envelope marked as “Earnest Money” drawn in favor of Director General (Finance), Higher Education Commission, Islamabad along with the proposal. This tender is being executed under PPRA Rule **36 (b) “Single Stage – two Envelope”**. This advertisement is also available at PPRA (<http://www.ppra.org.pk>) website.

**Director Business System Development
Higher Education Commission
Sector H-9, Islamabad
Phone 051-90402208, 90402224, 90402255
Email: zwahab@hec.gov.pk, ssaleem@hec.gov.pk, mrtariq@hec.gov.pk**

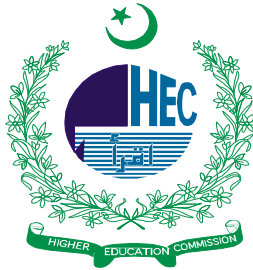
Request for Proposal (RFP)

For

Upgradation of HEC Local Area Network (LAN) Equipment

Last Date for Submission: 28th June 2022 at 1:30 p.m.

Bid Opening Date: 28th June 2022 at 2:00 p.m.



**HIGHER EDUCATION COMMISSION
H-9, ISLAMABAD**

Website: www.hec.gov.pk

Tele no. 051-90402208, 90402255, 90402224

(Rs. 1000/-)

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1. **DEFINITIONS**

1. HEC: Higher Education Commission.
2. RFP: Request for Proposals.
3. BOQ: Bill of Quantities
4. BOC: Bill of Cost
5. FAC: Final Acceptance certificate
6. FOC: Free of Cost
7. Total Bid Value: Total Cost as per BOC.
8. Bidder: Firms that have submitted the proposals.
9. Selected Bidder: Firms selected for the award of the tender.
10. First Party: Higher Education Commission
11. Second Party: Selected Bidder.
12. Trouble Ticket: A File that identified the fault, and the technical detail.
13. Call-out Interval: The time between Network Operation Centre issuing a trouble ticket to the concerned vendor engineer and confirming that the trouble ticket is received and accepted by the vendor.
14. Restoration Time: Time measured between a trouble ticket being received and accepted by the vendor and restoration of the system(s)/service(s)/functionality (ies) subject to operating condition.
15. Resolve: To restore the system(s)/services(s)/functionality (ies) about which a trouble ticket was issued and complete all further activities necessary to close the trouble ticket.
16. Resolution Time: The time measured between a Trouble ticket being received and accepted by the vendor and the answer to / completion of the trouble ticket.

2. INTRODUCTION

Higher Education Commission is established to facilitate the higher education sector to serve as a Socio-Economic Engine for the development of Pakistan. To augment its vision, HEC has always believed in and encouraged technology as a tool for the higher education sector to leapfrog and catch up with the pace of socio-economic development in the developed world. HEC has always given special focus to Information Technology for the enablement and empowerment of the higher education sector.

Whereas the Higher Education Commission (HEC), has an IT Infrastructure that provides IT facilities to the employees of HEC and the users of universities/institutes like Video Conferencing, Interactive Lecturing, Internet, Email, SAP, Internal and External Portal, Files Sharing, Unified Communication, ERP, DAS, Education TV, E-Office, etc. HEC has network equipment like Core Switches, Firewalls, and Access Switches to provide network Facilities and the above services available to the users. As existing LAN switches got the end of life and end of support, HEC have to upgrade the existing LAN Network to continuously use existing and new technologies. By up-gradation LAN Switches and Firewalls HEC wants to achieve performance, reliability, and security.

3. SCOPE OF WORK

The following requirements define the scope of work of this tender:

1. The Selected Bidder will be responsible for the supply, installation, configuration, integration, and testing of supplied equipment and components at HEC designated sites (Islamabad, Lahore & Karachi) as per requirements of HEC, no payment shall be made for mobilization of equipment.
2. Selected Bidder must ensure that the supplied equipment is operational, new, perform properly, and meet RFP's Technical Specification mentioned in Form-I and it is not going to be the end of life & end of support for the next five years and equipment spare parts remain available with the vendor for the said period.
3. The vendor will be responsible for the training of two ICT officers free of cost at vendor premises from their product-certified resources. The successful bidder shall provide the necessary training before product delivery and will give both the participants a complete overview of the solution, help them become familiar with its capabilities, and allow them to practice using the solution with day-to-day operations.
4. At the time of installation and commissioning, the Selected Bidder must provide comprehensive documentation of Configuration, Manuals, and Network diagrams.
5. The selected bidder is required to provide the cost of the technical compliance equipment and solution as referred in Technical Specification Form-I with 01-year warranty and installation services. 1 Year 8x5xNBD OEM / principal backed advance support for Firewalls, local and foreign support, and services when needed and required.

6. The selected bidder shall be responsible for the provisioning of extended warranties and services if required by HEC.

4. BIDS SUBMISSION REQUIREMENTS

The objective of the bid submission requirement is to provide bidders the information to submit their bid in response to this RFP according to the specifications defined in this RFP and the order/sequence as outlined in this document. Bidders must follow the following requirements for their proposals/bids.

1. For this tender PPRA's Rule number **36(b) Single-stage two envelope (Least Cost Selection)** bidding procedure will be followed for evaluation.
2. The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial and technical proposal.
3. The envelopes shall be marked as "FINANCIAL PROPOSAL" and "TECHNICAL PROPOSAL" in bold and legible letters to avoid confusion.
4. Initially, only the envelope marked "TECHNICAL PROPOSAL" shall be opened.
5. The envelope marked as "FINANCIAL PROPOSAL" shall be retained in the custody of the procuring agency without being opened.
6. Bidders shall submit Technical Proposal along with brochures/data sheets explaining the items quoted.
7. During the technical evolution, no amendments in the technical proposal shall be permitted.
8. Bidders shall submit a signed letter with an Official stamp affixed on it as per the format given in Annex I as a cover letter to the Bid/Proposal. Bids/Proposals submitted without this cover letter will not be accepted and bids will likely be rejected straightaway.
9. Bidders shall provide Company Profile, Authorization & relationship with the principal firm(s), location of branch offices, company experience in the related field, technical staff details (branch-wise), project completed, major clients list as per the format given in Annex II "Firm's References", equipment's technical details (brochures, datasheets, etc.) mentioning compliance and properly highlighting (tick marking) all the compliance specification as requested in Form I "Technical Specification" using a fluorescent highlighter.
10. Bidders are required to fill and sign the Form I "Technical Specification" as provided in this RFP and must submit it along with the Proposal.
11. Bidders are required to fill and sign all pages of Annex IV "Bill of Cost" while following the format given and submit it as Financial Proposal. Financial Proposals not following the given format may lead to the rejection of the bid.
12. Bidders are required to submit their financial proposals in PAK Rupees. A bank draft/Pay Order of fixed amount Rs. 500,000/- accompany the bid as part of the financial proposal as earnest money

drawn in favor of D.G. (Finance), Higher Education Commission, Islamabad. The Earnest Money in the form of a Bank Guarantee or Insurance guarantee is not acceptable.

13. The bid shall not be considered without earnest money.
14. The selected bidder shall provide an Integrity pact on legal stamp paper which will be part of the Contract Agreement.
15. Bidders are required to quote the unit prices of each item inclusive of all the taxes applicable by the federal/provincial government.

5. SELECTION PROCEDURE

1. Evaluation of the firms shall be based on information provided in Technical Proposals.
2. The Tender will be awarded on Turnkey basis
3. Bidders are required to meet all the mandatory conditions as defined herein for further consideration of the bid for financial comparison
4. Only technically responsive bidders will be considered for further processing and comparison of financial bids.
5. The bid was found lowest evaluated and technically fully in compliance with the BOQ and this RFP will be accepted for the award of the contract subject to the approval of the Competent Authority.
6. After the approval of the contract award, a contract agreement on the stamp paper worth Rs. 100/- shall be executed by the firm with the selected bidder within 30 days from the date of issuance of the Letter of Intent.

6. TERMS OF PAYMENT

1. No payment shall be made in advance to the Contractor as mobilization advance.
2. Seventy percent (70%) cost of equipment shall be paid after successful delivery of equipment at HEC designated site.
3. Thirty percent (30%) cost of equipment shall be payable to the Contractor upon FAC, proper integration, testing, commissioning of all equipment, and training of nominated 2 HEC persons, as per the requirement of HEC.
4. Ten Percent (10%) of the payable amount against each invoice/payment will be retained as security/retention money. 10% retained money will be released after successful completion of the Contract Period.

5. Payments shall be made through cross cheque in Pak Rupees.
6. Taxes will be deducted at the source as per government rules at the time of payment.
7. The selected bidder shall provide a 10% performance bank grantee of the total contract value at the time of contract signing, which will be returned after the successful Installation of equipment to the HEC designated site.
7. **Earnest Money (EM):**
 1. Bidders are required to submit their financial proposals in PAK Rupees. A bank draft/Pay Order of fixed amount of Rs. 500,000/- should accompany the bid as part of the financial proposal as earnest money drawn in favor of D.G. (Finance), Higher Education Commission, Islamabad. The Earnest Money in the form of a Bank Guarantee or Insurance guarantee is not acceptable.
 2. The Earnest Money (EM) of the unsuccessful Bidders will be refunded within a reasonable time after the award of the tender to the Selected Bidder. The EM amount held by the HEC till it is refunded to the unsuccessful Bidders may not earn any interest thereof.
 3. Subject to the award of the contract, the Earnest Money shall be returned in PKR to the Selected Bidder against submission of a 10% Performance Guarantee of the total cost of the bid in the form of a Bank Guarantee.
 4. The Earnest Money (EM) may be forfeited by the HEC, if the Bidder withdraws the Bid during the period of its validity specified in the RFP Document or if the Selected Bidder fails to sign the contract, or the Selected Bidder fails to remit the Performance Guarantee within the respective due date.
 5. Earnest Money shall be valid only for one bid as has been required by the HEC as per Technical Specifications.
8. **ARBITRATION:**
 1. If the progress of the work is not to the satisfaction of the Executive Director, HEC. Executive Director HEC has the right to cancel the order, and get the work done from the third party selected by the PPRA rules subject to the condition that if the first party has to pay any amount above the agreed amount, the difference will be recovered from the second party.
 2. In case of any dispute between the two parties or any matter arising after signing the contract agreement, the case shall be referred to Executive Director, HEC whose decision shall be final and binding on both parties.
9. **LIQUIDATED DAMAGES**
 1. In case of breach of Warranty support, the calculation will be done as per the table below and HEC reserves the right to impose a penalty not exceeding 10% of the annual amount of the respective component
 2. If the work is not executed according to the satisfaction of the Executive Director, the Executive Director reserves the right to reject it altogether or impose a penalty not exceeding 50% of the contract amount.

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

10. **General Terms & Conditions**

- 1 The Commission reserves the right to accept/reject wholly or partially any tender at any stage of the tender process.
- 2 The validity period of the bids shall be 4 months (120 days).
- 3 The decisions of HEC will be binding on all concerned and will in no case be challengeable at any forum or any court of law.
- 4 Bids are liable to be rejected if; they are not confirming the terms, conditions, and specifications stipulated in this RFP.
- 5 During the examination, evaluation, and comparison of the bids, HEC at its sole discretion may ask the bidder for clarifications of its bid.
- 6 The request for clarification and the response shall be in writing/email. However, no change in the price or substance of the bid shall be sought, offered, or permitted after bid submission.
- 7 Total Bid Value shall cover the cost of the equipment with warranty/services. And shall account for financial evaluation and so shall be included in Total Bid Value.
- 8 If there is a discrepancy between the 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 the 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 the bid, his bid shall be rejected and his bid security forfeited.
- 9 Incomplete and conditional Bids will not be entertained.
- 10 For this tender, all updates/changes shall be communicated through email and also be posted on the HEC website.
- 11 The maximum delivery time for all items is 10-12 weeks.
- 12 Bids submitted via email or fax will not be entertained.
- 13 The bidder who sends the bid through courier/ postal reached HEC designated officer one day before the opening of the bid.
- 14 Bidders shall provide a certificate from their bank certifying their sound financial position and credit limit from the bank or any appropriate documentary proof (e.g. two years Audit Report), showing the financial strength of the bidders.
- 15 Bidders indemnify HEC against all third-party claims of infringement of patent trademark, industrial design rights arising from the use of the goods, or any part thereof in Pakistan.
- 16 The quantity of equipment and its parts may be increased or decreased as per HEC requirements.

- 17 Repeat Order may be issued as per PPRA Rule 42(C)-IV within permissible limit of 15% of total contract value.
- 18 Vendors are required to quote unit prices against each item.
- 19 Warranty services will be started after the commissioning of the equipment.

11. MEET OR EXCEED SPECIFICATIONS

The specifications provided in this RFP are the minimum requirements of HEC. 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 be highlighted to enable HEC to identify modified specifications.

12. CLARIFICATIONS

Queries regarding this RFP shall be submitted in writing to:

1st Point of Contact

Muhammad Ramzan Tariq

LAN Administrator (IT)

Higher Education Commission

H-9, Islamabad

Phone: +92 (51) 90402255

Fax: +92 (51) 90402224

E-mail: mrtariq@hec.gov.pk

2nd Point of Contact

Saria Saleem

Dy. Director (IT)

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E-mail: Ssaleem@hec.gov.pk

3rd Point of Contact

Zain Ul Wahab

Director IT (BSD)

Higher Education Commission

H – 9, Islamabad.

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Fax: +92(051) 90402202

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Form I: Technical Specification

FORM-I: Technical Specification					
Equipment	Attributes	Item	Description	Compliance Yes/No	Comments
ACCESS SWITCHES	Manageable Access Switch Non-SMB (Layer-2 POE+)	POE+ Switch	Must Support POE+		
		Fixed Ports	48 Ethernet 10/100/1,000 Base-T ports(Electrical), 4 x 10 Gig SFP+ ports, All Ports active & required no more licenses/Cards		
		Stacking Support	Support Stacking through Electrical ports		
		Switching Capacity	Minimum of 170Gbps switching capacity		
		Forwarding Performance	Minimum of 120Mpps Forwarding Capacity		
		MAC Address entries	16K		
		ARP	2K		
		FIBV4	4K		
		QoS Features	Traffic Classification, Traffic Behaviour, Traffic Shaping, Congestion Management & avoidance		
		Security	Support all basic Layer 2 security features		
		Power	Single AC Power supply		
		Compliance with international standard LAN	Support all Standard Layer-2 Switching Protocol		

		Protocol			
		Memory	Minimum of 512M Memory		
		Configuration & Management	CLI Based, Console, Telnet, SSH & WEB Management Support SNMPv1/v2c/v3 Third party NMS support		
		Chassis Height	Chassis Height Must be 1U		
Distribution Switch	Manageable Distribution Switch Non-SMB (Layer-3)	Fixed Ports	48 x 10 Gig SFP+ ports, 40G Uplink support, All Ports active & required no more licenses/Cards		
		Stacking	Must Support Stacking function through stacking cable		
		Switching Capacity	Switching capacity ≥1.4Tbps		
		Forwarding Capacity	Forwarding performance minimim 400Mpps		
		MAC Address	MAC address: ≥128K		
		ARP Address	ARP ≥44K		
		IPV4 FIB	IPv4 FIB ≥128k		
		IPV6 FIB	IPv6 FIB ≥64k		
		Stack Bandwidth (Unidirectional)	Stack Bandwidth ≥40G		
		Support Protocol	ECMP, OSPF, IS-IS, BGP, VRRP, BFD, L2 VPN, L3 VPN, GRE, MPLS, MPLS VPN		
		Security	ARP, DHCP Snooping, Port Security, ACL		
		Configuration & Management	CLI Based, Console, Telnet, SSH, & WEB Management Support SNMPv1/v2c/v3 Third party NMS support		
		Memory	RAM: ≥2GB , Flash: ≥512M		
		Power	Dual AC Power Supply		
				Chassis Height	Chassis Height Must be 1U

Form I: Technical Specification

Detailed Specification of Next-Generation Firewall in High availability (QTY =2)			
1.1	Mandatory System Performance and Scaling Requirements:	Compliance (YES/NO)	Comment (Attach documentary proof with reference page#)
1.1.1	The Bidder Shall propose 2 Next-Generation Firewalls in High Availability, with three years of below subscription and Support Services		
a	Application Visibility		
b	Advanced Intrusion Prevention System		
c	Full/Extended Antivirus Database, Anti-Spyware		
d	URL Filtering		
e	Advanced DNS Security		
F	Advanced Malware Prevention		
g	File Blocking and Filtering		
h	Quality of Service		
I	Virtual Firewalls (5)		
J	SSL VPN Concurrent connections (300)		
1.1.2	The Next Generation Firewall must deliver at least 20 Gbps of Firewall throughput (1518/512/64 byte UDP)		
1.1.3	When enabled below threat features, the Firewall should deliver at least 6 Gbps throughput with application visibility and user identification enabled utilizing 64K HTTP transactions, using real-world enterprise traffic mix.		
a	Advanced/Extended Intrusion prevention system with all signature/anomalies and Severities		
b	Full/Extended Antivirus Database		
c	Anti-Spyware		

d	Anti-botnet		
e	URL Filtering (Including user notification, safe search enforcement, etc) and blocking HTTPS-based URLs with agent or agentless		
F	DNS Security		
g	File-blocking and File-filtering (DLP)		
h	Application identification		
i	User identification (Agentless)		
j	Logging Enabled		
1.1.4	NGFW performance must not be affected when enabling any of the below features and must still commit to the minimum throughput required in section 1.1.3:		
a	Logging and storing it on Local HDD Hard disk capacity minimum 500Gb		
b	All Management features like SSH, HTTPS, SNMP, etc		
c	Scheduled threat prevention DB updates up to the level of checking every 1 minute to ensure the best security coverage.		
d	Multiple alert systems like Syslog, SNMP, etc at the same time.		
e	All application inspections.		
F	Changing the order of Security rules.		
g	Using all IPS signatures for all supported applications with extended packet captures for critical to high severity alerts.		
h	Virtual context should not impact the Firewall performance		
1.1.5	The administrator must not have to apply any tradeoff between security and performance, choosing to use in any security profile different versions of the signatures database, for IPS with a redundant number of elements.		
1.1.6	Administrators must not have to apply any tradeoff between security and performance, choosing to use in any security profile different versions of signatures database, for Antivirus and malware scanning with a reduced number of elements.		
1.1.7	The proposed firewalls shall support at least 1 million concurrent sessions with all threat prevention-enabled features and at least 140,000 new sessions per second.		

1.1.8	The proposed firewalls shall deliver at least 2.5 Gbps IPsec VPN throughput.		
1.1.9	The proposed firewalls shall deliver at least 200 IPSEC site-to-site tunnels if required.		
1.1.10	Dedicated high availability ports (preferably 10G ports).		
1.1.11	High availability, Active/ Active with Asymmetrical Routing support and Active/passive.		
1.1.12	The proposed solution must support QoS (marking and/or traffic shaping) for multiple classes at the same time and must be able to make policy as below:		
a	QoS policy-based traffic shaping (priority, guaranteed, maximum)		
b	QoS policy-based Diffserv marking		
c	QoS policy based on application category, users/groups, or any combination		
1.1.13	The proposed firewalls must have at least network ports as follows:		
i	(6) 1Gbps SFP/SFP+ interfaces		
ii	(8) 1G/10G SFP/SFP+ interfaces		
iii	(6) 10/100/1000 copper interfaces.		
1.1.14	Reporting: The solution should provide granular reporting (with query builder)		
1.1.15	Reporting: Network Log storage for a minimum of 30 days		
1.1.16	Reporting: The proposed firewall shall support a real-time interactive graphical dashboard to highlight high risky applications, suspicious app-centric content, and users		
1.1.17	Reporting: The proposed firewall can schedule PDF report generation and send it over email		
1.1.18	Data Filtering: The firewall should be capable of identifying and optionally preventing the transfer of various files (i.e. MS Office, PDF, etc.) via identified applications (i.e. P2P, IM, SMB, etc.)		
1.1.19	Data filtering: Social Security Numbers, Credit card Number any regex pattern		
1.1.20	Data Filtering: Custom Data Patterns		
1.2	Functional Requirements		
1.2.1	300 Concurrent User License for SSL client Based VPNs.		

1.2.2	Proposed firewalls should be able to decrypt TLS 1.2 Traffic with RSA-AES256-GCM-SHA384 with 2K keys at a server response packet size of 1500 bytes		
1.2.3	Possibility to support internally developed applications with application ID customized manually by the customer		
1.2.4	The NGFW platform shall support dual IPV4 and IPV6 stacks application control and threat inspection support in tap mode, transparent mode Layer 1, layer 2, and layer 3		
1.2.5	The NGFW platform shall support multiple virtual routers to run different sets of routing protocols (interfaces can be bound to different virtual routers)		
1.2.6	Anti-Virus should not reduce the IPS inspection throughput and should be able to give full threat prevention capabilities		
1.2.7	Anti-Spyware should not reduce the IPS inspection throughput and should be able to give full threat prevention capabilities		
1.2.8	Advanced malware protection to prevent unknown modern targeted attacks and APTs		
1.2.9	Support IPSEC VPN, and dynamic site-to-site VPN support with LSVPN.		
1.2.10	Identify users, not just IP addresses. Leverage information stored in Active Dictionary for Visibility, policy creation, reporting, and forensic investigation.		
1.2.11	Inspect content in real-time. Protect the network against attacks and malware embedded in application traffic at low latency, high throughput speeds, with all signatures applied at the same time		
1.2.12	Policy-based control by application and /or application category (non-port based) – as a policy matching criteria		
1.2.13	The proposed solution should be able to decrypt ssh/SSL/tls 1.2 protocols and extend advanced malware protection to all file types over HTTP, POP3, IMAP, FTP, SMTP, and SMB		
1.2.14	The proposed firewalls shall support Denial of Service (DoS) and fragmented packet Transmission Control Protocol (TCP)		

	reassembly, brute force attack, "SYN cookie", "IP spoofing" and malformed packet protection.		
1.2.15	The proposed firewalls shall support transparent and tap mode within the appliance.		
1.2.16	The proposed firewalls shall support 802.IQ Virtual Local Area Network (VLANs) tagging (in tap, transparent, layer 2, and layer 3).		
1.2.17	The proposed firewalls shall support dual IPV4 and IPV6 stacks application control and threat inspection support in tap mode, transparent mode, layer 2, and layer 3.		
1.2.18	The proposed firewalls shall support standards-based link aggregation (IEEE 802.3ad) to achieve higher bandwidth.		
1.2.19	The proposed firewalls shall support policy-based forwarding based on zone, source or destination address, source or destination port, application, and users/groups imported from Active Directory (AD)/Lightweight Directory Access Protocol (LDAP) Remote Authentication Dial-in user (RADIUS) user or user groups.		
1.2.20	Should support network traffic classification which identifies applications across all ports irrespective of port/protocol/evasive tactic.		
1.2.21	The proposed firewalls shall support IPV6 routing for virtual routers.		
1.2.22	Should provide hot-swap fans and redundant power supplies		
1.2.23	Should support APIs that would allow the firewall to be integrated with any known NAC, 3 rd Party Content security provider, and WLAN controllers for user identification.		
1.2.24	Should support the Syslog Receiver feature that would allow the firewall to be integrated with any known NAC, and WLAN controllers for identification		
1.2.25	The firewall should support voice-based protocols (H.323, SIP, SCCP, MGCP, etc)		
1.2.26	The firewall should be capable of identifying and optionally preventing the transfer of various files (i.e. MS Office, PDF, etc.) via		

	identified applications (i.e. P2P, IM, SMB, etc.)		
1.2.27	The firewall should take decisions based on different matching parameters not based on layer4 parameters. It should be based on applications, URL categories, device state, IP addresses, security zone, username/group(s)		
1.2.28	Policies based on port-and-protocol and application as the match criteria (application decision should not be done separately)		
1.2.29	Support Geographical location policy in a security rule, where connections going to a country or countries can be blocked		
1.3	Threat Prevention: Next-Generation IPS		
1.3.1	Block viruses, spyware, malware, and network worms and vulnerability exploits within the content application content		
1.3.2	File blocking by type and application		
1.3.3	Anonymous Botnet Detection		
1.3.4	Blocks application vulnerabilities		
1.3.5	Block known network and application-layer vulnerability exploits		
1.3.6	Block buffer overflow attacks		
1.3.7	Block DoS/DDoS attacks; it shall support Denial of Service (DoS) and fragmented packet transmission control protocol (TCP) reassembly, reconnaissance attacks, brute force attack, "SYN cookie", "IP spoofing" and malformed packet protection.		
1.3.8	Support attack recognition for IPV6 & IPV4		
1.3.9	Stream-based protection and scanning for Anti-virus & Antispyware		
1.3.10	Built-in signature and anomaly-based IPS engine		
1.3.11	Ability to create custom user-defined signatures		
1.3.12	Support CVEcross-referencing where applicable		
1.3.13	Support automatic security updates directly over a secure connection (i.e. no dependency on any intermediate device)		
1.3.14	All threats should be part of the application context		
1.3.15	The platform should be capable to enforce various threat prevention profiles on different		

	applications running on the same L4 session		
1.4	Advanced Malware Prevention		
1.4.1	Identifies unknown malware and zero-day exploits using advanced static and dynamic analysis techniques		
1.4.2	Should support anti-evasion capability which is tested against advanced evasion techniques.		
1.4.3	Malware analysis should support files on windows, Linux, Mac OS, and android platform		
1.4.4	Drive-by Download Detection & protection		
1.4.5	Dynamic analysis should include but not be limited to: changes made to hosts, suspicious network traffic, anti-analysis detection plus more potentially malicious behaviors		
1.5	Antivirus/Anti-spyware:		
1.5.1	Pre-application antivirus or anti-spyware scanning options		
1.5.2	Pre-category scanning options		
1.5.3	Phone-home detection/ blocking		
1.5.4	Malware site blocking		
1.5.5	DNS-based botnet signatures		
1.5.6	DNS sink holing for Malicious and fast-flux domains		
1.6	URL Filtering:		
1.6.1	Multi-category filtering		
1.6.2	Customizable allow and blocklists		
1.6.3	Customizable block page & coaching pages		
1.6.4	Custom categories		
1.6.5	Database located locally on the device		
1.6.6	Support block and continue (i.e. allowing a user to access a website that potentially violates policy by presenting them a block page with a warning with a continue option allowing them to proceed for a certain time)		
1.7	DNS Security:		
1.7.1	Neutralize DNS tunneling		
1.7.2	Predict and stop DGA-leveraging malware with real-time domain query analysis DNS threat detection methods using the modular and infinitely extensible DNS security cloud-based service		
1.7.3	DNS threat detection methods using the		

	modular and infinitely extensible DNS security cloud-based service		
1.8	Data Filtering:		
1.8.1	Files should be identified by file types or by signature		
1.8.2	The firewall should be capable of identifying and optionally preventing the transfer of various files (i.e. MS Office, PDF, etc.) via identified applications (i.e. P2P, IM, SMB, etc.)		
1.8.3	Compressed information stored in zipped files should be able to be unpacked and filtered per policy		
1.8.4	The firewall should be capable of identifying and optionally preventing the transfer of files containing sensitive information (i.e. credit card numbers) via regular expression		
1.8.5	Should not have any file size limitation in checking content for keywords		
1.8.6	The platform should be capable of enforcing file blocking on different applications running on the same L4 session		
1.8.7	Control Drive-by-Download (Files that are downloaded/transferred via web applications without the knowledge of the user-it might have an exploit that can attack the end-user workstation)		
1.9	User Identification:		
1.9.1	should support the following authentication services for user identification:-		
a	Active Directory		
b	Exchange, LDAP, eDirectory, Radius, Kerberos		
C	Client Certificate		
D	Captive Portal		
E	Terminal Server		
F	Support the Creation of security policy based on Active Directory Users and groups in addition to source/destination IP		
G	Users from Citrix and terminal services environments should be supported in policy and logs		
H	Populate all logs with a user identifier (traffic, IPS, URL, data, etc.)		
I	Logged user identification correlated in real-time.		

J	Should support API that would allow the firewall to be integrated with any known NAC, and WLAN controllers for user identification		
K	Should support built-in Syslog server for collecting user identification logs from UNIX, and any network controller (WLAN, NAC) for user identification		
1.10	Networking		
1.10.1	Tap mode, layer 2, and layer 3 (should be supported in the same virtual system at the same time)		
1.10.2	Can be developed as virtual wire (layer 1 with no change to MAC nor IP addresses). Bump in the wire technology		
1.10.3	RIPv2, OSPFv2 and BGP		
1.10.4	Policy based routing		
1.10.5	Policy based routing with application as matching criteria		
1.10.6	5 minutes Automatic Signature generation after malware analysis.		
1.11	Gartner Magic Quadrant		
1.11.1	The Proposed Next-Generation Firewall should be in NSS LAB and Gartner Magic Quadrant, as Leaders or challengers for Enterprise Firewall from the past 3 years. Supporting Document to be provided. The Gartner's Report-2019, 2020, and 2021 should be furnished for the same.		

Form-II: BILL OF QUANTITIES (BOQ)

FORM-II BILL OF QUANTITIES (BOQ)			
Sr#	Item Description	Reference	Qty
A. Access Switches			
1	Manageable Access Switches (Layer 2, POE+)	As per Technical Specification at FORM-I	15
B. Distribution Switches			
1	Manageable Distribution Switches (Layer-3)	As per Technical Specification at FORM-I	2
C. FIREWALL			
1	Next Generation (NGN/UTM) FIREWALL (HA)	As per Technical Specification at FORM-I	2
D. Accessories			
a.	Optical Transceiver		
1	10G-SFP+ Optical Transceiver	Transceiver, SFP+,10G,Multi-mode Module(850nm,0.3km,LC)	10
2	10G-SFP+ Optical Transceiver	Transceiver, SFP+,10G,Single-mode Module(1310nm,1.4km,LC)	2
b.	Patch Cords/Stack Cables		
1	Patch cord (LC/LC , 1 pair, 3m)		25
2	Patch cord (LC/SC , 1 pair,3m)		15
3	Patch Cords(Ethernet, 1m)		100
4	Patch Cords(Ethernet, 0.5m)		100
5	Patch Cords(Ethernet, 10m)		10
c.	Cable Manager		
1	48 Ports		15
d.	PDU		

1	PDU Sockets (6)		10
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Annex IV: Bill of Cost

(To be filled by the bidder as part of the Financial Proposal)

FORM III: BILL OF COST (BOC)							
			A	B	C	D	A*(B+C+D)=E
Sr#	Item Description As per Technical Specification Form-I	Quoted Model	QTY	Unit Cost inclusive of GST (PKR) with 1 st Year Warranty Service FOC	Cost of 2 nd Year Warranty Service with Inclusive of All Govt. Tax	Cost of 3rd Year Warranty Service with Inclusive of All Govt. Tax	Total Cost inclusive of GST (PKR)
ACCESS SWITCHES							
1	(Manageable Access Switch Type-3,Layer-2,POE+) 48 Ethernet 10/100/1,000 Base-T ports(Electrical), 4 x 10 Gig SFP+ ports, All Ports active & required no more licenses/Cards		15		N/A	N/A	
Distribution Switches							
2	Manageable Distribution Switch (Layer-3) 48 x 10 Gig SFP+ ports, All Ports are active & required no more licenses/Cards		2		N/A	N/A	
FIREWALLS							
3	Next Generation		2				

	(NGN/UTM) Firewalls(With all mentioned Licenses in Technical specification Form-I for the next 3 years)						
Optical Transceiver							
4	10G-SFP+ Optical Transceiver (Multi-mode Module(850nm,0.3km,LC)		10		N/A	N/A	
5	10G-SFP+ Optical Transceiver (Single-mode Module(1310nm,1.4km,LC)		2		N/A	N/A	
Patch Cords							
6	Patch cord (LC/LC, 1 pair, 3m)		25		N/A	N/A	
7	Patch cord (LC/SC, 1 pair,3m)		25		N/A	N/A	
8	Patch Cords (Ethernet, 1m)		100		N/A	N/A	
9	Patch Cords (Ethernet, 0.5m)		100		N/A	N/A	
10	Patch Cords (Ethernet, 10m)		20		N/A	N/A	
Total Bid Value in Figure = sum(E)							
Total Bid Value in Words = sum(E)							

Note: 2nd & 3rd Year Warranty Services Cost shall be paid to the selected bidder on completion of each year. HEC will sign a Contract Agreement for 3 Years for firewall support and warranty services and one year for switches support and warranty services.

1. TECHNICAL EVALUATION CRITERIA

Part-A: Mandatory Requirement			
Sr. No	Description	Documentary Proof	Ref Page#
1	Firms with Income Tax Certificate and GST Certificate & Registration with SECP	GST / NTN Certificate & SECP registration	
2	Past 5 Years of experience in terms of delivery & Installation /Service Maintenance of quoted products.	Copy of Contract Agreement/PO Work Order/ Company Profile	
3	Firms must have Location of Offices/Service Center (Islamabad / Rawalpindi)	(Documentary Proof Required on company letterhead)	
4	The bidder must be an authorized partner/distributor for the last five years of the quoted brand.	Principal manufacture authorization certificate	
5	Approx.50 million Financial Turnover annually quoted brand last two Years (Documentary Proof Required).	Auditor Report	

6	Satisfactory Certificate from any Three (3) government/Sami government/Private organization/department of quoted brand last (3) Years.	From Government / Sami Government/Private organization /department letter	
7	Must have completed 5 similar projects in terms of Supply, Installation, and Configuration of Network Switches and Firewalls	Purchase Order Last 5 Years	
8	An affidavit on legal stamp paper worth Rs. 100 to the effect that the firm has never been blacklisted by any Government/Semi-Government organization in the Past.	Legal Stamp Paper Duly verify by notary public Sign & Stamp	
9	Quoted product principal/ distributor must have parts replacement/ store facility In Pakistan, mention the ware house.	Proof on company Letterhead.	
10	Quoted Brand must have valid ISO Certification	Documentary Proof Required.	
11	The quoted product must be the Latest / Brand New / Continue and shown on the Manufacturer's Official Website to ensure the product is genuinely available with OEM / Principal.	OEM/Principal Website	
12	Major clients' list	Documentary Proof- Required	

Sr. No	Attributes	Max. Score	Weightage	Criteria	Reference Page# (Documentary Proof)
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Part-B: General Evaluation- Corporate Profile

13	Details of Offices	10	10	Firm has sales and services offices at four (4) provincial headquarters with proof of authorized service provider from principal manufacturer. Two and half (2.5) points for each parts head quarter	Location of Branches Service and sale center on Bidder Letter Head
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14	Spare Parts Availability	10	10	Firm has Spare Parts of the quoted model Depot/facility at Islamabad / Rawalpindi.	Bidder letterhead with an address of warehouse
15	Replacement time for faulty under warranty equipment/parts	15	15	1-2 working days	Certificate must be produced
			10	3-4 working days	
			5	5-6 working days	
16	Total strength of relevant Technical Staff at Rawalpindi / Islamabad	10	10	Firm has more than ten (10) relevant technical staff in Islamabad / Rawalpindi.	(List shall be attached with name, designation, qualification and related experience)
			7	Firm has more than five (5) and up to ten (10) relevant technical staff in Islamabad / Rawalpindi	
			5	Firm has minimum five (5) relevant technical staff in Islamabad / Rawalpindi	
17	Financial Strength	10	10	Turnover of Bid in consideration/ maximum Turnover amongst all the Bids *10	Audit Report/ Financial Report/Tax return for the last two years
18	Firms Experience (Minimum five Years experience required)	10	10	Two and half points (2.5) will be given for each year of experience beyond five years of mandatory experience	Experience Certificate attached
Sub-Total		65	65		
The weight of Part B is 50% and the Score will be calculated by the following formula:					

	Firm's Score = Marks Obtained by Firm in Part B / Total Max. Marks of Part B * 50	50			
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Part-C: Relevant Experience

19	Similar Projects Completed in Higher Education Sector (Supply of Switches and Firewalls)	10	10	Firm has completed more than ten (10) projects in Education Sector	Purchase/ Work Order/ LOI Copies
			7	Firm has completed more than five (5) and up to ten (10) projects in Education Sector	
			5	Firms has completed minimum 5 projects in Education Sector	
20	Similar Projects Completed in Banks/Telecom Sector (Supply of Switches mentioned in BOQ and Firewall Installation)	10	10	Firm has completed more than ten (10) projects in Banks/Telecom sector	Purchase/ Work Order/ LOI Copies
			7	Firm has completed more than five (5) and up to ten (10) projects in Banks/Telecom Sector	
			5	Firms has completed minimum 5 projects in Banks/Telecom Sector	
21	The firm has completed similar activities in different cities in a single project in Pakistan (Supply of Switches and Firewalls mentioned in BOQ)	10	10	Firm has completed more than seven (10) projects in a similar activity in different cities	Purchase/ Work Order/LOI Copies
			7	Firm has completed more than five (5) and up to ten (10) projects in a similar activity in different cities	

			5	Firms has completed minimum 5 projects in a single project in a similar activity in different cities	
22	SLA in Hand in Pakistan (Switches & Firewalls)	10	10	No. of SLA's in Hand more then Five (5)	Purchase/ Work Order/LOI Copies
			7	No. of SLA's in Hand more then three (3) upto Five (5)	
			5	No. of SLA's in Hand three (3)	
Sub-Total		40	40		
The weight of Part C is 40% and the Score will be calculated by the following formula: Firm's Score = Marks Obtained by Firm in Part C / Total Max. Marks of Part C *40		40			
Part-D: Service Operations					
23	The firm has Customer Compliant Management System with adequate Controls.	15	15	If have implemented online system	Online URL and Login should be shared
Sub-Total		15	15		
The weight of Part D is 10% and the Score will be calculated by the following formula: Firm's Score = Marks Obtained by Firm in Part E / Total Max. Marks of Part E *10		10			

Note: No Score will be assigned if the information is provided without documentary proof.

- In case of Confidentiality of any documentary proof, the score will be considered subject to the availability of a relevant Non-Disclosure Agreement (NDA) in the BID

(Technical Score of the bidder) = as awarded per technical evaluation criteria above

Note: Bidders are required to secure at least a 70% score (i.e. 70 points) in total to be declared as technically qualified and so considered for further financial evaluation.

13. FINANCIAL EVALUATION

Financial bids of Technically Qualified bidders shall only be evaluated. While doing a financial evaluation, total bid value shall be considered provided the financial bid includes all the costs involved in the project as per the requirements outlined in this document and strictly following the format given in BOQ.

14. AWARD OF TENDER

For the award of the tender, the Least-Cost-Selection (LCS) procedure of the PPRA 36 (b) shall prevail, and Lowest Evaluated Bid amongst the technically qualified bidders shall be accepted for the award of the tender.



Annex I: Proposal Submission Form.

PROPOSAL SUBMISSION FORM

The Director of IT (BSD),
Higher Education Commission,
H-9, Islamabad

Sir,

We, the undersigned, offer to provide services for “_____” and in accordance with your Request for Proposal dated _____, and our Proposal. We are hereby submitting our Financial Proposal along with Technical compliance, sealed in an envelope.

We understand you are not bound to accept any Proposal you receive and reserve the right to accept or reject any offer and to annul the bidding process and reject all proposals without assigning any reason or having to owe any 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' sincerely

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:



Annex II: Firm’s References

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

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
DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC.
PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN
CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: _____ Dated: _____

Contract Value: _____

Contract Title: _____

_____ hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege, or other obligation or benefit from the Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GOP) through any corrupt business practice.

Without limiting the generality of the foregoing, _____ represents and warrants that it has fully declared the brokerage, commission, fees, etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP, except that which has been expressly declared pursuant hereto.

_____ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GOP and has not taken any action or will not take any action to circumvent the above declaration, representation, or warranty.

_____ accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts, or taking any action likely to defeat the purpose of this declaration, representation, and warranty. It agrees that any contract, right, interest, privilege, or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GOP under any law, contract, or other instruments, be voidable at the option of GOP.

Notwithstanding any rights and remedies exercised by GOP in this regard, _____ agrees to indemnify GOP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GOP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by _____ as aforesaid to obtain or induce the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP.

[Company name]



Annex V: **Technical Compliance Certificates/Compliance Undertaking**

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

I, (Name); (CNIC#); (Designation), (Company Name) have gone through the Terms/Conditions of this RFP and have found the document in whole as non-biased to any particular vendor or product/brand. 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

6

7

8

9

10

Signature _____

Name _____

Designation _____

Company _____

Date _____