

MMBL/CSD/RFQ/2022/0055

Subject: Request for Quotation (RFQ) of 04 units Routers and 04 units Switch for Modhumoti Bank Limited.

Dear Sir,

 Modhumoti Bank Limited wants to procure **04 units Routers and 04 units switch** from reputed companies. In this connection, we would request you to submit your financial and technical offer as per below requirements.

Router (Quantity : 4)		
Feature	Specification	Bidder's Response
Brand	Brand: Any International reputed Brand	
Model	Model: To be mentioned by the bidder	
Country of Origin	USA/UK	
Performance	Should provide traffic performance 250 Mbps or more	
Memory	Memory: 4 GB DRAM & 4 GB Flash	
Interface	Router should have minimum 1 Nos of 10/100/1000 WAN ports as 1 port Copper/SFP combo port and minimum 8 ports 10/100/1000 LAN ports from day 1. from LAN port, at least 4 ports should be PoE 802.3af-compliant or at least 2 port should be PoE+ 802.3at-compliant port from day 1.	
General Features	Should support minimum 50 Mbps IPsec performance from day 1 which can be upgrade 150 Mbps if future	
	Should support static routes, OSPF, BGP	
	Should support LISP, Virtual Private LAN Services (VPLS), L2TPv3, MPLS & Ethernet over MPLS	
	Should support hardware assisted VPN acceleration for crypto performance in future without any hardware change	
	Security: Should support DES, 3DES, VPN compliant IPsec, AES-128 or AES-256 for encryption and RSA (748 /1024/2048 bit) and ECDSA (256/384 bit) as authentication protocol in future without any hardware change	
	Should support PPPoE, Layer 2 Tunneling Protocol Version 3, IPsec based VPN,GRE Over IPsec VPN, site-to-site, remote access software based VPN over IPv4 and IPv6	
	Should support dynamic failover protocols such as Virtual Router Redundancy Protocol (VRRP; RFC 2338)	
	Network Services: IPv4, DNS, DHCP Client, DHCP Server, DHCP relay & AAA	
	QoS: Packet Shaping, Traffic Policing, Per-flow queuing, Class-based queuing	
	Should support modular OS on open platform with programmable and automation feature to support software defined WAN (i.e. link optimization, application visibility/detection, traffic load balancing, performance analysis for routing etc.)	
Manufacturer's part number	Bidder should submit BOQ of proposed device including the details part numbers and Manufacturer's Warranty part number	
Warranty	Manufacturer's warranty part number should be mentioned, minimum 1 (One) year warranty for OEM technical solution support, Patch & New Software Upgrade, RMA replacement should be provided for this unit from the date of commissioning.	

Switch : (Quantity 4)		
Feature	Specification	Bidder's Response
Port	● 24 10/100/1000 ports ● 4 Gigabit SFP ● Rack-mountable	
Flash	256 MB	
CPU	800 MHz ARM	

DRAM	512 MB	
Port grouping/link aggregation	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) ● Up to 8 groups ● Up to 8 ports per group with 16 candidate ports for each (dynamic) 802.3ad link aggregation	
VLAN	Support for up to 4,094 VLANs simultaneously Port-based and 802.1Q tag-based VLANs; MAC-based VLAN; protocol-based VLAN; IP subnet-based VLAN Management VLAN Private VLAN with promiscuous, isolated, and community port Private VLAN Edge (PVE), also known as protected ports, with multiple uplinks Guest VLAN, unauthenticated VLAN Dynamic VLAN assignment via RADIUS server along with 802.1x client authentication CPE VLAN	
Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS. Voice Services Discovery Protocol (VSDP) delivers network wide zero-touch deployment of voice endpoints and call control devices	
Generic VLAN Registration Protocol (GVRP)/Generic Attribute Registration Protocol (GARP)	Protocol (GVRP)/Generic Attribute Registration Protocol (GARP) Generic VLAN Registration Protocol (GVRP) and Generic Attribute Registration Protocol (GARP) enable automatic propagation and configuration of VLANs in a bridged domain	
Dynamic Host Configuration Protocol (DHCP) Relay at Layer 2	Relay of DHCP traffic to DHCP server in different VLAN; works with DHCP Option 82	
Internet Group Management Protocol (IGMP) versions 1, 2, and 3 snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 2K multicast groups (source-specific multicasting is also supported)	
IGMP Querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router	
IGMP proxy	The IGMP proxy provides a mechanism for multicast forwarding based on IGMP membership information without the need for more complicated multicast routing protocols.	
Loopback Detection	Loopback detection provides protection against loops by transmitting loop protocol packets out of ports on which loop protection has been enabled. It operates independently of STP	
IPv4 routing	Wire speed routing of IPv4 packets Up to 990 static routes and up to 128 IP interfaces	
Layer 3 Interface	Configuration of Layer 3 interface on physical port, Link Aggregation (LAG), VLAN interface, or loopback interface	
Classless Inter domain Routing (CIDR)	Support for classless inter domain routing	
RIP v2	Support for Routing Information Protocol version 2 for dynamic routing	
Policy-Based Routing (PBR)	Flexible routing control to direct packets to different next hop based on IPv4 or IPv6 Access Control List (ACL)	
User Datagram Protocol (UDP) relay	Relay of broadcast information across Layer 3 domains for application discovery or relaying of Bootstrap Protocol (BOOTP)/DHCP packets	
Hardware stacking	Up to 4 units in a stack. Up to 200 ports managed as a single system with hardware failover	

High availability	Fast stack failover delivers minimal traffic loss. Support link aggregation across multiple units in a stack	
Secure Shell (SSH) Protocol	SSH is a secure replacement for Telnet traffic. Secure Copy Protocol (SCP) also uses SSH. SSH v1 and v2 are supported	
Secure Sockets Layer (SSL)	SSL support: Encrypts all HTTPS traffic, allowing highly secure access to the browser based management GUI in the switch	
IEEE 802.1X (Authenticator role)	802.1X: Remote Authentication Dial-In User Service (RADIUS) authentication and accounting, MD5 hash; guest VLAN; unauthenticated VLAN, single/multiple host mode and single/multiple sessions Supports time-based 802.1X; dynamic VLAN assignment; MAC authentication	
Web-based authentication	Web-based authentication provides network admission control through web browser to any host devices and operating systems	
IP/MAC/Port Binding (IPMB)	The preceding features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) work together to prevent DOS attacks in the network, thereby increasing network availability	
Port security	Ability to lock source MAC addresses to ports and limits the number of learned MAC addresses	
RADIUS/TACACS+	Supports RADIUS and TACACS authentication. Switch functions as a client	
RADIUS accounting	The RADIUS accounting functions allow data to be sent at the start and end of services, indicating the amount of resources (such as time, packets, bytes, and so on) used during the session	
Storm control	Broadcast, multicast, and unknown unicast	
DoS prevention	Denial-of-Service (DOS) attack prevention	
Multiple user privilege levels in CLI	Level 1, 7, and 15 privilege levels	
ACLs	Support for up to 1,024 rules Drop or rate limit based on source and destination MAC, VLAN ID, IPv4 or IPv6 address, IPv6 flow label, protocol, port, Differentiated Services Code Point (DSCP)/IP precedence, Transmission Control Protocol/User Datagram Protocol (TCP/UDP) source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag; ACL can be applied on both ingress and egress sides Time-based ACLs supported	
Priority levels	8 hardware queues	
Scheduling	Strict priority and Weighted Round-Robin (WRR)	
Class of service	Port based; 802.1p VLAN priority-based; IPv4/v6 IP precedence/Type of Service (ToS)/DSCP-based; Differentiated Services (DiffServ); classification and remarking ACLs, trusted QoS Queue assignment based on DSCP and class of service (802.1p/CoS)	
Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to one destination port.	
VLAN mirroring	Traffic from a VLAN can be mirrored to a port for analysis with a network analyzer or RMON probe. Up to 8 source VLANs can be mirrored to one destination port.	
Remote Switch Port Analyzer (RSPAN)	Traffic can be mirrored across Layer 2 domain to a remote port on a different switch for easier troubleshooting	

General Terms and Conditions:

1. **Purchaser's Right:** The Purchaser reserves the right to accept/ cancel/ reject any or all offer without assigning any reason. The Purchaser is not obliged to purchase the lowest offer or any offer at all. The Purchaser reserves the right to share the Bidder's response to this RFQ with its advisors and Purchaser Business Units. Purchaser reserves the right to: conduct negotiations with one or more Bidder and/ or accept the Bid without any negotiations.
2. **Bid Submission/ Closing Date:** The Quotation shall be mail to the below mentioned address:
Chairman Purchase Committee, CSD Division Level-7, Modhumoti Bank Limited, Gulshan, Dhaka by 14:00 PM (Bangladesh Standard Time) 8th December, 2022. The Purchaser reserves the right to reject any Quotation submitted after the Closing Date. The Purchaser reserves the right to change the Time schedule at any time.
3. **Required Content of the Quotation:** Quotation must be submitted as per prescribed form as instructed below:
 - Proposal must be addressed for "Chairman Purchase Committee" of Modhumoti Bank Limited.
 - Complete proposal/offer must be signed with date by the authorized representative of the company.
4. **Quotation Validity:** The Quotation shall be valid for 1 year (365) calendar days from the Quotation submission/ closing date.
5. Manipulation or any kind of unusual approach or failure to submit the proposal/offer within stipulated time frame will be treated as "Disqualification" to attend in the bidding.
6. **Commercial Terms and Conditions:**
 - **Price:** The quoted price should include applicable VAT. The rate of VAT should be mentioned in the quotation.
 - **Payment Terms:** Payment will be made after Final Acceptance (FAC will be given after successful delivery) & upon submission of the bill with work order & original challan which is duly signed by authorized personnel (Name & Seal, if available). Payment will be made through Bank Account only.
 - **Price Submission:** The bidder shall have to submit the price in the letter head pad.
 - The Bidder shall have to submit their proposal as per the format attached with the RFQ. Any proposal not following the format will be considered as disqualify and will not consider for evaluation.

With kind regards,

Shah Md. Humayun Kabir

VP, Head of CSD

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