KERALA AGRICULTURAL UNIVERSITY

Directorate of Information Systems

Main Campus, Vellanikkara

K.A.U. (P.O.), Thrissur - 680656

Email: dis@kau.in

No. KAUDIS/31/2025-DIS A1   Dated: 27-02-2025

QUOTATION NOTICE

Kerala Agricultural University invites sealed Quotations from Service provider/ firm/ Supplier/ Contractor for "**VPN Router**" in its Vellanikkara campus as per the schedule of requirements given in the BOQ vide Annexure 1, meeting the technical specifications vide Annexure 2, subject to the terms and conditions mentioned in Annexure 3.

Important Information

Bid Inviting Authority	**Directorate of Information System**, Kerala Agricultural University
Contact Person	Director, Directorate of Information Systems, Academic Block 1, College of Agriculture, Vellanikkara. KAU– PO, Thrissur – 680656. Ph: 0487-2438183
Mode of Qutation Submission	Direct/ By post**
GST Rate Applicable	As per GST rules
Last Date of Submitting Quotations	10 March 2025 3.00 PM
Opening of Quotation	11 March 2025 11.00 AM

* Exemption is allowed to MSME companies as per Govt. rules.

**In the case of Courier, ensure the company has delivery at this office

Scope of Work

Supply of **VPN Router to Directorate of Information Systems, Kerala Agricultural University,** Specifications ,BOQ, & Teams and   Conditions   are   given   in   Annexure 1 ,2 and 3 Respectively.

Annexure 1: (BOQ)

SLNo	Item	Qty	Total Cost
1	VPN Router	10 Nos	

Annexure II： Specification

1) VPN Router

HARDWARE FEATURES	
Standards and Protocols	· IEEE 802.3, 802.3u, 802.3ab, IEEE 802.3x, IEEE 802.1q · TCP/IP, DHCP, ICMP, NAT, PPPoE, NTP, HTTP, HTTPS, DNS, IPSec, PPTP, L2TP, OpenVPN, SNMP
Interface	· 1 Fixed Gigabit WAN Port · 2 Fixed Gigabit LAN Ports · 2 Changeable Gigabit WAN/LAN Ports · 1 USB 2.0 Port (Connecting 4G/3G Modem as WAN Backup‡)
Network Media	· 10BASE-T: UTP category 3, 4, 5 cable (Max 100m) EIA/TIA-568 100Ω STP (Max 100m) · 100BASE-TX: UTP category 5, 5e cable (Max 100m) EIA/TIA-568 100Ω STP (Max 100m) · 1000BASE-T: UTP category 5, 5e, 6 cable (Max 100m)
Fan Quantity	Fanless
Button	Reset Button
Power Supply	External 12V/1A DC Adapter
PoE Budget	-
Flash	128 MB NAND
DRAM	256 MB DDR
LED	PWR, SYS, WAN (Link/Act), LAN (Link/Act), USB
Dimensions (W x D x H)	6.2 × 4.0 × 1.0 in (158 × 101 × 25mm)
Protection	4 kV surge protection
Enclosure	Steel
HARDWARE FEATURES	
Mounting	Desktop/Wall-Mount
Max Power Cousumption	7.94 W

PERFORMANCE	
Concurrent Session	150,000
New Sessions /Second	2,600
NAT (Static IP)	· Upload: 945.77 Mbps · Download: 945.56 Mbps · Bi-Directional: 1808.29 Mbps
NAT(DHCP)	· Upload: 945.93 Mbps · Download: 945.43 Mbps

	· Bi-Directional: 1808.11 Mbps
NAT(PPPoE)	· Upload: 940.44Mbps
	· Download: 940.52 Mbps
	· Bi-Directional: 1804.27 Mbps
NAT (L2TP)	· Upload: 845.64 Mbps
	· Download: 802.65 Mbps
	· Bi-Directional: 931.96 Mbps
NAT (PPTP)	· Upload: 771.66 Mbps
	· Download: 874.81 Mbps
	· Bi-Directional: 999.54 Mbps
64 Byte Packet Forwarding Rate	· Upload/Download: 1,402,238 pps
	· Bi-Directional: 1,681,548 pps
IPsec VPN Throughput	· ESP-MD5-AES256: 171.26 Mbps
	· ESP-SHA1-AES256: 224.86 Mbps
	· ESP-SHA2-AES256: 248.04 Mbps
OpenVPN	· 21.70 Mbps
L2TP VPN Throughput	· Unencrypted: 864.65 Mbps
	· Encrypted: 47.11 Mbps
PPTP VPN Throughput	· Unencrypted: 703.20 Mbps
	· Encrypted: 76.65 Mbps
SSL VPN Throughput	-
66 Byte Packet forwarding rate	· Upload/Download: 954.50 Mbps
	· Bi-Directional: 1130.00 Mbps
1,518 Byte Packet forwarding rate	· Upload/Download: 997.50 Mbps
	· Bi-Directional: 1965.00 Mbps

BASIC FUNCTIONS	
WAN Connection Type	· Static/Dynamic IP
	· PPPoE
	· PPTP
	· L2TP
	· Mobile Broadband: 4G/3G modem for backup via USB port‡
MAC Clone	Modify WAN/LAN MAC Address†
DHCP	· DHCP Server/Client
	· DHCP Address Reservation
	· Multi-net DHCP
	· Multi-IP Interfaces
IPv6	StaticIP / SLAAC / DHCPv6 / PPPoE / 6to4Tunnel / PassThrough
VLAN	802.1Q VLAN
IPTV	IGMP v2/v3 Proxy, Custom Mode, Bridge Mode

ADVANCED FUNCTIONS	
ACL	IP/Port/Protocol/Domain Name Filtering
Advanced Routing	· Static Routing · Policy Routing
Bandwidth Control	IP-based Bandwidth Control
Load Balance	· Intelligent Load Balance · Application Optimized Routing · Link Backup (Timing, Failover) · Online Detection
NAT	· One-to-One NAT§ · Multi-Net NAT · Virtual Server · Port Triggering · NAT-DMZ · FTP/H.323/SIP/IPSec/PPTP ALG, UPnP
Security	· SPI Firewall · VPN Passthrough · FTP/H.323/PPTP/SIP/IPsec ALG · DoS Defence, Ping of Death · Local Management
Session Limit	IP-based Session Limit

VPN	
IPsec VPN	· 20 IPsec VPN Tunnels · LAN-to-LAN, Client-to-LAN · Main, Aggressive Negotiation Mode · DES, 3DES, AES128, AES192, AES256 Encryption Algorithm · IKEv1/v2 · MD5, SHA1 Authentication Algorithm · NAT Traversal (NAT-T) · Dead Peer Detection (DPD) · Perfect Forward Secrecy (PFS)
PPTP VPN	· PPTP VPN Server · 10 PPTP VPN Clients · 16 Tunnels · PPTP with MPPE Encryption

L2TP VPN	· L2TP VPN Server · 10 L2TP VPN Clients · 16 Tunnels · L2TP over IPSec
OpenVPN	· OpenVPN Server · 10 OpenVPN Clients · 16 OpenVPN Tunnels

SECURITY	
Filtering	· WEB Group Filtering§ · URL Filtering · Web Security
ARP Inspection	· Sending GARP Packets§ · ARP Scanning · IP-MAC Binding
Attack Defense	· TCP/UDP/ICMP Flood Defense · Block TCP Scan (Stealth FIN/Xmas/Null) · Block Ping from WAN
Access Control	Source/Destination IP Based Access Control

AUTHENTICATION	
Web Authentication	No Authentication Simple Password* Hotspot（Local User / Voucher* / SMS* / Radius*) External Radius Sever External Portal Sever* · Facebook*

MANAGEMENT	
App	Yes Cloud-Based Controller, / Software Controller.
Centralized Management	Hardware Controller Software Controller Cloud-Based Controller
Cloud Access	Yes. Cloud-Based Controller, or Software Controller.
Service	Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe)
	· Web Management Interface · Remote Management

Maintenance	· Export & Import Configuration
	· SNMP v1/v2c/v3
	· Diagnostics (Ping & Traceroute)
	· NTP Synchronize
	· Syslog Support
Zero-Touch Provisioning	Yes. Requiring the use of Cloud-Based Controller.
Management Features	· Automatic Device Discovery
	· Intelligent Network Monitoring
	· Abnormal Event Warnings
	· Unified Configuration
	· Reboot Schedule
	· Captive Portal Configuration

OTHERS	
Certification	CE, FCC, RoHS
Package Contents	· Gigabti VPN Router ER605
	· Power Adapter
	· RJ45 Ethernet Cable
	· Quick Installation Guide
System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista^{TM} or Windows 7/8/8.1/10/11, MAC OS, NetWare, UNIX or Linux
Environment	· Operating Temperature: 0–40 $°C$ (32–104 $°F$);
	· Storage Temperature: -40–70 $°C$ (-40–158 $°F$)
	· Operating Humidity: 10–90% RH non-condensing
	· Storage Humidity: 5–90% RH non-condensing

Annexure 3

Terms and conditions:

1. The quotations superscribed "**VPN Routers for DIS KAU**" should be addressed to the Director of Information Systems, Academic Block 1, College of Agriculture, Vellanikkara. The last date for the receipt of filled in Quotations is 3.00 pm on 10.03.2025 and the same will be opened at 11.00 AM on 11.03.2025 in the presence of Quotationers or their authorized representatives who may be present at that time. The cost of Quotations has to be remitted in the by means of DD or cheque drawn in the name of Director of Information Systems, Kerala Agricultural University.

2. Quotation should be submitted in the prescribed form which can be downloaded from the website www.kau.in/Qutations. The cost of the Quotation forms will not be refunded under any circumstances.

3. Each Quotation should be accompanied by an Earnest Money Deposit of 1% of the total quoted

amount in the form of demand draft drawn in favour of Director of Information Systems, Kerala Agricultural University payable at SBI, Vellanikkara branch. The Quotation should be accompanied by an agreement in Kerala Stamp Paper worth Rs.200/- (Rupees Two Hundred only) and format can be downloaded from the above website. Withdrawal of Quotations after its acceptance or failure to supply the items or supplies not in accordance with the specification will entail cancellation of the Quotation. The successful Quotationer should supply the item to Directorate of Information Systems, Vellanikkara within ten days from the date of the receipt of supply order. The Director of Information Systems reserves the right to remove the defaulted name from the list of suppliers permanently or for a specific period.

4. The successful Quotationer should execute an agreement in Kerala Stamp Paper worth Rs.200/- (Rupees Two Hundred only) and furnish a security deposit of 5% of the cost of the entire quantity of items quoted in the form of term deposit/ bank guarantee/ demand draft drawn in favour of Director of Information Systems, Vellanikkara. The format for the agreement can be downloaded from the KAU website.

5. The cost of the items should be quoted inclusive of all taxes, loading and Unloading, fright and other applicable charges.

6. The rate shall be valid for a period of one year from the date of acceptance of Quotation.

7. The Director of Information Systems, KAU reserves the right to accept or reject any or all of the offers without assigning any reason.

8. If any Hartal/ Strike/ any unexpected holidays/ Covid restrictions occur on the date of opening of Quotation, the Quotation will be opened at the same time on the next working day.

9. All the rules and regulations applicable to Government Quotations will be applicable to this Quotation also.

10. Data Sheet of the above items should be enclosed along with Quotation documents the specifications. The parameters Should be highlighted in data sheet

11. Copies of Registration certificate of firm, GST Registration Certificate, PAN and Other relevant documents justifying any claims related to the Quotation bids.

12. The Firm should have at least one registered office in Kerala.

Director of Information Systems

To

a.

    a. Notice Board

    b. KAU website (web team to upload)

    C. Systems Manager, DIS