

### KERALA AGRICULTURAL UNIVERSITY

Directorate of Information Systems KAU Main Campus, KAU P.O., Thrissur-680656

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No. KAUDIS/41/2023-DIS A1

Dated: 04.12.2023

### **TENDER NOTICE**

**Kerala Agricultural University** invites sealed Tenders from Service provider/ firm/ Supplier/ Contractor for "10 *G 48 Port Office Distribution Switch*" in its Vellanikkara campus as per the schedule of requirements given, meeting the technical specifications, subject to the terms and conditions mentioned below.

**Important Information** 

| Bid Inviting Authority            | Directorate of Information   |  |
|-----------------------------------|--|--|
|                                   | Systems,   |  |
|                                   | Kerala Agricultural University   |  |
| Contact Person                    | Director, Directorate of Information Systems, Academic Block 1, College of Agriculture,  |  |
|                                   | Vellanikkara. KAU– PO, Thrissur – 680656. Ph: 0487-<br>2438183   |  |
| Mode of Tender Submission         | Direct/ By post**  |  |
| Nonrefundable Tender document fee | Tender Fee: 0.2% of the cost of tender rounded to the nearest multiple of 100, subject to a minimum of Rs. 400/- and maximum Rs.1500/- + 18% GST |  |
| Earnest Money Deposit             | 1% of quoted amount  |  |
| (EMD) payable *                   | (to be remitted as separate DD drawn in favor of Director, Directorate of Information Systems, payable at SBI, Vellanikkara)                     |  |
| GST Rate Applicable               | As per GST rules   |  |
| Last Date of                      | 19.12.2023 3 PM  |  |
| Submitting the Tender Documents   |  |  |
| Opening of Tenders                | 20.12.2023 11 AM   |  |

<sup>\*</sup> Exemption is allowed to MSME companies as per Govt. rules.

<sup>\*\*</sup>In the case of Courier, ensure the company has delivery at this office

# **Specification**

# I) 10G Switch

| HADDWA      | RE FEATURES            |  |
|-------------|------------------------|--|
| HARDWAI     | Interface              | 16× 10GE SFP+ Slots                              |
|             |                        | 10× 10GE SFF+ Slots                              |
|             | Fan Quantity           | -  |
|             | Power Supply           | Dual Redundant Power Supplies 100-240 V          |
|             | )                      | AC~50/60 Hz                                      |
|             | Mounting               | Rack Mountable                                   |
| DEDEODA     | Body                   | Metallic   |
| PERFORM     |                        | 220 01   |
|             | Switching Capacity     | 320 Gbps   |
|             | Packet Forwarding Rate | 238.08 Mpps                                      |
|             | MAC Address Table      | 32 K   |
|             | Packet Buffer Memory   | 24 Mbit  |
|             | Jumbo Frame            | 9 KB   |
| L2 and L2+  |                        |  |
|             | Link Aggregation       | - Static link aggregation                        |
|             |                        | - 802.3ad LACP                                   |
|             |                        | - Up to 8 aggregation groups, containing 8 ports |
|             |                        | per group  |
|             | Spanning Tree Protocol | - 802.1d STP                                     |
|             |                        | - 802.1w RSTP                                    |
|             |                        | - 802.1s MSTP                                    |
|             | Loopback Detection     | - Port based                                     |
|             |                        | - VLAN based                                     |
|             | Flow Control           | - 802.3x Flow Control                            |
|             |                        | - HOL Blocking Prevention                        |
|             | Mirroring              | - Port Mirroring                                 |
|             |                        | - CPU Mirroring                                  |
|             |                        | - One-to-One                                     |
|             |                        | - Many-to-One                                    |
|             |                        | - Tx/Rx/Both                                     |
|             | VLAN                   | VLAN Group                                       |
|             |                        | Max 4K VLAN Groups                               |
|             |                        | 802.1Q Tagged VLAN                               |
|             |                        | MAC VLAN: 30 Entries                             |
|             |                        | Protocol VLAN: Protocol Template 16, Protocol    |
|             |                        | VLAN 16  |
|             |                        | Private VLAN                                     |
| L3 Features | S                      |  |
|             | Static Routing         | - 48 static routes                               |
|             | Static ARP             | - 128 Static Entries                             |
|             | DHCP Server            | YES  |
|             | DHCP Relay             | - DHCP Interface Relay                           |
|             |                        | - DHCP VLAN Relay                                |
| Security    |                        |  |
|             | IP-MAC-Port Binding    | - 512 Entries                                    |

|         |            | - DHCP Snooping                                |  |
|---------|------------|--|--|
|         |            | - ARP Inspection                               |  |
|         |            | - IPv4 Source Guard: 100 Entries               |  |
|         | Protection | DoS Defend                                     |  |
|         |            | Static/Dynamic Port Security                   |  |
|         |            | Broadcast/Multicast/Unicast Storm Control with |  |
|         |            | kbps/ratio control mode                        |  |
|         |            |  |  |
|         | 802.1X     | - Port base authentication                     |  |
|         |            | - Mac base authentication                      |  |
|         |            | - VLAN Assignment                              |  |
|         |            | - MAB  |  |
|         |            | - Guest VLAN                                   |  |
|         |            | - Support Radius authentication and            |  |
|         |            | accountability                                 |  |
| MANAGEM | ENT        |  |  |
|         | SDN        | Integration with Software/Cloud based SDN      |  |
|         | Other      | 1. Web-based GUI                               |  |
|         |            | 2. Command Line Interface (CLI)                |  |
|         |            | 3. Console port, telnet                        |  |
|         |            | • SNMP v1/v2c/v3                               |  |

### II) 10G SFP+ Module

| 11) 100 St 1 · Module |                         |                      |
|-----------------------|-------------------------|----------------------|
| HARDWARE FEATURES     |                         |                      |
|                       | DDM                     | Yes                  |
|                       | SFP-MSA                 | Yes                  |
|                       | Hot Swappable           | Yes                  |
| TRANSCEIVER           |                         |                      |
|                       | Standards and Protocols | IEEE 802.3ae, TCP/IP |
|                       | Wave Length             | 1310 nm              |
|                       | Power Supply            | 3.3V                 |
|                       | Fiber Type              | 9/125um Single-Mode  |
|                       | Max. Cable Length       | 10 km                |
|                       | Data Rate               | 10 Gbps              |
|                       | Port Type               | LC Duplex            |
| WARRENTY              | OEM Warranty of 3 years |                      |

## III) 10G BASE-T RJ45 SFP+ Module

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|-----------------------------|---|---------------------------|--|
| HARDWARE FEATURES           |   |                           |  |
|                             | Hot Swappable                           | Yes                       |  |
| TRANSCEIVER                 |   |                           |  |
|                             | Standards and Protocols                 | IEEE Std 802.3, 802.3ab,  |  |
|                             |   | 802.3bz, 82.3an           |  |
|                             | Power Supply                            | 3.3V                      |  |
|                             | Max. Cable Length                       | 100BASE-TX: UTP cat .5 or |  |
|                             |   | above (max. 100m)         |  |
|                             |   | 1000BASE-T/2.5GBASE-T/    |  |
|                             |   | 5GBASE-T: UTP cat.5e or   |  |

|           | above (max. 100m)<br>10GBASE-T: UTP cat.6a or<br>above (max. 30m) |
|-----------|---|
| Data Rate | 10.3 Gbps   |
| Port Type | 1× 10G RJ45 Port  |

## BOQ

| Sl. No | Item                        | Qty     |
|--------|-----------------------------|---------|
| 1.     | 10G Switch                  | 1 No.   |
| 2.     | 10G BASE-T RJ45 SFP+ Module | 16 Nos. |
| 3.     | 10G SFP+ Module             | 4 Nos.  |

### **Terms and conditions:**

- 1. The Tenders superscribed "10 *G 48 Port Office Distribution Switch*" 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 Tenders is 3 PM on 19.12.2023 and the same will be opened at 11 AM on 20.12.2023 in the presence of tenderers or their authorized representatives who may be present at that time. The cost of tenders 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. Tender should be submitted in the prescribed form which can be downloaded from the website www.kau.in/tenders. The cost of the tender forms will not be refunded under any circumstances.
- 3. Each tender 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 tender 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 tenders after its acceptance or failure to supply the items or supplies not in accordance with the specification will entail cancellation of the tender. The successful tenderer 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 tenderer 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 and applicable charges.
- 6. The rate shall be valid for a period of one year from the date of acceptance of tender.
- 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 tender, the tender will be opened at the same time on the next working day.
- 9. All the rules and regulations applicable to Government Tenders will be applicable to this tender also.
- 10. Marked Data Sheet of the above items should be enclosed along with tender documents.

Director of Information Systems

To

- a. Notice Board
- b. KAU website (webteam to upload)
- c. Systems Manager, DIS