

## **TENDER NOTICE**

Tender No. KUCC/2020/213

Date: 03/11/2020

Sealed competitive tenders are invited from firms for the implementation of Wi-Fi bridging between S H campus, Palayam and University Library. The detailed requirements, terms and conditions are stated below.

Last date and time for submission of bid : 16/11/2020 3.00 PM

Date & time of opening of bid : 16/11/2020 4.00 PM

Hard copies of Quotations to be submitted to the office of : The Director  
Computer Centre  
University of Kerala  
Palayam, Thiruvnanthapuram - 34  
Phone: 0471 2305801

For technical details contact : Computer Center,  
University of Kerala,  
Palayam-695034  
0471-2386347,2305801  
*e-mail: [kucc.director@keralauniversity.ac.in](mailto:kucc.director@keralauniversity.ac.in)*

## **INTRODUCTION**

University of Kerala is setting up Wireless bridging system between S H campus and University Library. This is an alternative solution to wired networking at the time of unavailability of this network. Networking infrastructure being the core component forming the backbone of all information transport, invite quotation for providing their expert and competent services for carrying out Supply, Installation, Testing and Commissioning of Wireless bridging system at its campus. Structured Networking system required for Wi-Fi Points. This Networking Infrastructure should act as a reliable platform for all above mentioned converged service. Quotations are requested for the item(s) in complete accordance with the documents/attachments as per guidelines appearing in the document.

## **SCOPE OF WORK**

1. The scope of the work includes Supply, Installation, Testing and Commissioning of the solution and on-site training to authorised person.
2. The bidder shall be responsible for providing all materials, equipment and services specified herein or otherwise which are required to fulfill the intent of ensuring operability, maintainability, and reliability of the complete equipment covered under this tender within bidder's quoted price. The quantities for the passive components mentioned in the tender are the estimates. The bidder may quote and include in their bill of quantities any components, which they deem are necessary for successful implementation of the project.
3. All products being quoted should be compatible and seamlessly integrated with the existing networking infrastructure in University. The bidders are requested to visit the site before submitting the bid.
4. Quantities mentioned in the tender are indicative and therefore may vary as per actual requirements.
5. Each product should come with a comprehensive on-site warranty including labour and spares for three years starting from the date of commissioning and acceptance.
6. The existing OFC/Switches must be used wherever possible. The Connectivity to University Library and S H campus can be used existing switches and network are

working has to be connected with the bridging network. The firm shall be responsible to submit documentation of the work.

**BOQ**

| Sl No | Item  | Unit | Qty |
|-------|---|------|-----|
| 1     | Professional-standard 23dBi Directional outdoor Antenna for Wireless Transmission | Nos  | 2   |
| 2     | STP CAT6 cable  | Box  | 1   |
| 3     | PoE Adapter, 10/100/1000BaseT   | Nos  | 2   |
| 4     | 2 " GI Pol fixing Antenna   | Nos  | 1   |
| 5     | HDPE Pipe 32mm  | Mtrs | 10  |
| 6     | 20 mm PVC conduit with all accessearies   | Mtrs | 165 |
| 7     | Fixing and Alignment of Antenna with all accessories                              | Nos  | 2   |
| 8     | 2" GI pole Errection,concreating and painting                                     | Nos  | 1   |
| 9     | STP CAT6 cable Laying   | Box  | 1   |
| 10    | Laying of 32mm HDPE pipe with all Accessearies                                    | Mtrs | 10  |
| 11    | Laying 20 mm PVC conduit with all accessearies                                    | Mtrs | 165 |
| 12    | Termination and Configuration Antenna with all accessearies                       | Nos  | 2   |
| 13    | Warranty for 3 years  | Nos  | 1   |
| 14    | Additional item if any  |      |     |

## Antenna Specification

### HARDWARE FEATURES

|                   |  |
|-------------------|--|
| Processor         | 560MHz CPU or above  |
| Memory            | 64MB DDR2 RAM,8MB Flash or above   |
| Interface         | 1 x 10/100Mbps Shielded Ethernet Port (LAN/POE)<br>1 x Reset Button  |
| Power Supply      | Passive Power over Ethernet via LAN  |
| Antenna Gain      | 23dBi  |
| Antenna Beamwidth | 9°(Azimuth), 7°(Elevation)   |
| Protection        | 15KV ESD Protection<br>6KV Lightning Protection  |
| Enclosure         | Material: Outdoor PC stabilized plastic with reflector panel<br>Weatherproof: IP65 water and dust proof design |

### WIRELESS FEATURES

|                       |  |
|-----------------------|--|
| Wireless Standards    | IEEE 802.11a/n   |
| Wireless Speeds       | Up to 300Mbps (40MHz,Dynamic)<br>Up to 144.4Mbps (20MHz,Dynamic)<br>Up to 72.2Mbps (10MHz,Dynamic)<br>Up to 36.1Mbps (5MHz,Dynamic)  |
| Frequency             | 5.15~5.85GHz   |
| Transmit Power        | Max. 25dBm   |
| Network Configuration | WAN: Static/Dynamic/PPPoE/L2TP/PPTP<br>LAN: Static/Dynamic/DHCP<br>Forwarding: ALG/UPnP/Virtual Server/Port Trigger<br>Security: SPI Firewall/ Ping Forbidden/DoS Protection<br>Access Control<br>Static Routing<br>Bandwidth Control,IP & MAC Binding |

|                         |  |
|-------------------------|--|
| Wireless Configurations | Selectable Channel Width: 5/10/20/40MHz<br>Auto Channel Selection<br>Transmit Power Control<br>Dynamic Frequency Selection(DFS)<br>WDS Enable/Disable<br>Security: WPA/WPA2, WPA-PSK/WPA2-PSK<br>(AES/TKIP) Encryption,<br>64/128/152-bit WEP Encryption<br>SSID Broadcast Enable/Disable<br>Multi-SSID with VLAN Tagging(AP Mode only)<br>Distance/ACK Timeout Setting<br>Wireless MAC Address Filter |
| Management              | HTTP/HTTPS Web-based management<br>SNMP Agent(v2c),Ping Watch Dog,SSH Server   |
| Certification           | CE, FCC, IC, RoHS, IP65  |

### **Eligibility Criteria for Vendors**

- 1.The bidder should be an OEM or an authorized representative of the OEM. The bidder shall furnish the OEM's authorization letter specific to this tender clearly mentioning the tender details for which the authorization is being provided.
2. The bidder shall furnish proof of being capable of providing continuous support including software upgrades availability of spares for a minimum period of 3 years from the respective OEM for the quoted items.
- 3.The bidder/system integrator (SI) should be in the Wi-Fi business for the minimum last three years. The bidder also should have their own after sales support facilities in Thiruvananthapuram. The support facilities should be fully owned by the bidder / OEM and managed by their permanent employees (company payroll) and not through franchisee(s). It is mandatory to enclose the supporting documents.
4. The offered products in the Wi-Fi solution against the supply order shall be the latest version and should be under support for next 3 years. However, if any product, which is declared end of life product by the OEM during the supply period of material,

the bidder should replace model or next higher model/version of the product without any additional cost.

5. The bidder must specify item-wise compliance to the technical specifications. This compliance should also be countersigned by the respective OEM official. The make and model of the quoted items must be clearly specified.

6. The quotation should be valid for a minimum period of 90 days.

7. The bidder has to complete the work as per the time schedule proposed. The University has the right to claim compensation for the delay in completing the work as per schedule.

Note: All the details and the supportive documents for the above mentioned items should be submitted.

### **Terms and Conditions**

1 University does not bind itself to accept the lowest bid or any tender and reserves the right to reject any or all tenders without assigning any reason.

2 Complete technical specifications and pamphlets should be sent along with the bid. Quotations without proper technical specifications will be rejected.

3 A site survey is required to find out Radio Frequency (RF) occurring already in our University environment and its overall effect.

4 The proposed system should support RF Coverage Map to allow troubleshooting of any issue.

5 The time allowed for delivery, installation, commissioning and completion of the work shall be 6 weeks effective from the date of the issue of the purchase order.

6 The bidder shall provide OEM's authorization letter confirming that the OEM supports the bidder.

Sd/-

**The Director (i/c)**

Computer Centre

S H Campus

University of Kerala

Palayam – 34

Thiruvananthapuram.