



Kerala Start-Up Mission (KSUM)

Formerly Technopark Technology Business Incubator (T-TBI)

G3B, Thejaswini, Technopark Campus

Thiruvananthapuram 695 581

Kerala State, India

Phone No: 0471 2700270

NOTICE INVITING TENDER

SCHEDULE		
Sl No	Activity Description	Schedule
1	Tender Enquiry No	KSUM/T/PMU/NWD/2021-22/12/27
2	Sale of Tender Document	Dec 27, 2021 to Jan 10, 2021 upto 6:00 pm Tender document can be downloaded from www.startupmission.kerala.gov.in/tender
3	No of Covers	2 (Technical & Financial)
4	Delivery time	In 1 weeks
5	Warranty period	1 Years
6	Tender Validity	90 days
7	Services to be offered	Supply and installation of Network devices required for PMU Project. (Please refer Tender Documents for more details)
8	Time and last date of online submission of Tender/bid	Jan 10, 2021 upto 6:00 pm
9	Time and Date of Opening of Technical Bid	Jan 11, 2021 at 11:00 am

The bid documents and other details may be downloaded from the website www.etenders.kerala.gov.in.



All Bid documents are to be submitted as hardcopy in the specified format in address given below. Please specify tender documents for more details.

The Chief Executive Officer

Kerala Start-Up Mission (Formerly Technopark-TBI),
G3B, Thejaswini, Technopark Campus,
Kariyavattom, Trivandrum 695 581
Phone No: 0471 2700270
Email: procurement@startupmission.in

Place: Trivandrum
Date: 27-12-2021

Procurement Officer
Kerala Start-Up Mission

Note: - If the date of opening of bids happens to be a holiday; the actual date for the same will be the next working day. No separate intimation in this regard will be issued.



Kerala Start-Up Mission
(Formerly Technopark TBI)
G3B, Thejaswini, Technopark Campus
Thiruvananthapuram 695 581
Kerala

TENDER DOCUMENT

KSUM/T/PMU/NWD/2021-22/12/27

Item required

Supply and installation of Network devices required for PMU Project				
Sl No	Description of items required	Qty	Warranty	Delivery
1	Network Router	1	1 Years	1 Week
2	Network Manageable Switch	1	1 Years	1 Week
3	Wi-Fi Access point with POE adapter with cabling	2	1 Years	1 Week

Detailed Specification

Network devices required for PMU Project

Dual WAN Gigabit VPN Router	
General Details	2 WAN ports (RJ-45) for load balancing and resiliency
	4 LAN ports for high-performance connectivity
	2 USB ports to support a 3G/4G modem or flash drive
Dynamic web filtering	Enables business efficiency and security while connecting to the Internet, allows Internet access policies for end devices and Internet applications to help ensure performance and security.
Client identification	Identifies the type of connected devices and allows setting policies.
Application visibility	Generates reports of Internet applications being used by clients and allows setting policies.
Intrusion Prevention System (IPS)	Blocking network connections that are determined too risky for the organization.

Security	Firewall, UTM features, Secure connectivity, Hardware-accelerated performance, Dual-WAN with load-balancing and 3G/4G failover brings resiliency and increased bandwidth, Partner- or customer-centric single pane-of-glass network management with the integration into FindIT Manager or web UI, Automated software updates
USB	2 for flash drive (USB-3, USB-2)
Firewall	Stateful packet inspection, up to 980 Mbps throughput for TCP and UDP
Quality of Service (QoS)	Traffic Classes, WAN Queuing, WAN Policing, WAN Bandwidth Management
Web Security	Dynamic web filtering: Cloud based, more than 80 categories, more than 450 million domains classified
Intrusion Prevention System (IPS)	IDS/IPS inspects network packets, logs and blocks attacks
VLAN	Up to 32 VLANs
Port Security	Yes, 802.1X
RAM	1 GB DDR3
Flash	256 MB

Manageable Switch	
General Details	24 10/100/1000 ports
	4 Gigabit SFP
	Rack-mountable
	56Gbps Switching capacity
Capacity in Millions of Packets per Second	above 40
Switching Capacity in Gigabits per Second (Gbps)	above 55
Spanning Tree Protocol	Standard 802.1d Spanning Tree support
VLAN	4,094 VLANs simultaneously
VLAN Translation	Must support One-to-One Mapping
Dynamic Host Configuration Protocol	DHCP traffic to DHCP server in different VLAN, with option 82
IPv4 routing	Up to 990 static routes and up to 128 IP interfaces
DHCP Server	Switch functions as an IPv4 DHCP server serving IP addresses for multiple DHCP pools/scopes
Security	Must have features such as SSH, SSL, IEEE 802.1X (Authenticator), IEEE 802.1X supplicant, Web-based authentication, STP, DHCP snooping,



RADIUS/TACACS+	Supports RADIUS and TACACS authentication. Switch functions as a client
Rate limiting	Ingress policer; egress shaping and rate control; per VLAN, per port, and flow based; 2R3C policing
EEE Compliant (802.3az)	Supports IEEE 802.3az on all copper Gigabit Ethernet ports
Buttons	Reset button
Cabling type	Unshielded Twisted Pair (UTP) Category 5e or better for 1000BASE-T
Flash	256 MB
CPU	800 MHz ARM
DRAM	512 MB

Wi-Fi Access point	
General Details	2x2 WiFi 6 access point
	Aggregate throughput upto 1.5Gbps
	Management interfaces - Ethernet & Bluetooth
	Ethernet Interface - (1) GbE RJ45 port
Management interfaces	Ethernet, Bluetooth
Button	Factory reset
WiFi standards	802.11a/b/g, WiFi 4/WiFi 5/WiFi 6
Wireless security	WPA-PSK, WPA-Enterprise (WPA/WPA2/WPA3)
VLAN	802.1Q
Advanced QoS	Per-user rate limiting
Throughput rate	2.4 GHz - >=300 Mbps
	5 GHz - >=1201 Mbps
Guest traffic isolation	Supported

General Terms & Conditions

1. Eligibility Criteria:

a) Should be a Firm/Company Incorporated in India.

b) Bidder should have a fully functional service centre with spares stock for attending the breakdown calls. Details of the service centre must be provided.



2. Scope of Supply:

- a) The tenders shall be submitted as per the technical specifications as per **Annexure - I** (Part A and Part B)
- b) Submission of the tender implies that these conditions of tender have been read by the tenderer and is aware of the scope of the supply and the quality of the material to be supplied. The final acceptance of the tender rests with the Chief Executive Officer, Kerala Startup Mission who reserves the right to accept or reject any or all tenders without assigning any reason thereof.

3. Submission of bids

The tender should be submitted in two parts as under

- I. Technical Bid
- II. Financial Bid

The documents shall include the following:

1. Company registration details
2. Company profile
3. Work completion report
4. Copy of GST registration
5. Tender form
6. Annexure 1

Financial Bid

1. As per the Format given in Annexure 2

4. Validity of Tender

- a) The tender shall be valid for a period of one year from the date of opening of the tender.
- b) Tenderer for any reason whatever, withdraws the tender after it is accepted or become unable or fails to execute the orders within stipulated delivery period, KSUM shall be at liberty to cancel the order forthwith and the EMD of the tender in such a case will be forfeited by the KSUM.
- c) No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained till supplies are completed.

5. Guarantee of Quality and Warranty of goods supplied:

- a. Guarantee/Warranty and Support and defects liability period-The supplier shall guarantee that all equipments are free from any defects due to the defective materials and poor workmanship, that the equipments are not less than the guaranteed values. The Guarantee



shall be valid for the period mentioned against each item above after successful testing and taking over. Any part found defective shall be replaced free of cost by the supplier.

6. Packing

- a. The supplier shall provide packing of the goods, as required to prevent their damages or deterioration during the transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit.
- b. The equipment shall be securely boxed, crated and protected from mechanical damage, moisture etc. suitable for both storage and transit according to the nature of the material and mode of transport.

7. Price

- a) The price shall be firm and shall include all applicable taxes and charges. Any variation in the duties, levies etc. during the period of supplies shall be charged to the tenderer account. The rates quoted shall be all inclusive, with the delivery, up to destination i.e. KSUM, Trivandrum.
- b) The Tenderer shall submit the copy of PAN Number, GST Number registration details along with the tender.

8. Delivery

- a. The successful tenderer shall complete supplies strictly within the accepted delivery period. Material ordered by the KSUM shall be delivered to destination securely packed as may be necessary.
- b. The Equipments shall have to be delivered and installed at KSUM, Trivandrum to the satisfaction of concerned Authority.

9. Payment

The payment will be made by KSUM by to the bank account as mentioned in the Invoice bill. The tenderer shall submit the documents, which shall clearly indicate that the Proper Installation & successful Testing of Equipment are done.

10. Service Facility

In order to ensure proper and timely after sales service, contact details with addresses of service centre nearest to KSUM, Trivandrum shall be provided along with the bid.

11. Taxes

Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser.

12. Termination for Default

The purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the Contract in whole or part:



- a. If the supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or
- b. If the Supplier fails to perform any other obligation(s) under the Contract.
- c. If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

☑ For the purpose of this Clause:

- a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- b. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of Borrower, and includes collusive practice among Tenderers (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition".

In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such Goods or Services. However, the Supplier shall continue the performance of the contract to the extent not terminated.

13. Claims:

- a. If the material supplied are found to be off size and shape different than those in the accepted offer and are of specifications lower than those stipulated in the accepted offer, KSUM shall have the right to totally reject the goods and/or to prefer a claim for compensation for the part of goods, which are rejected.
- b. The supplier shall reimburse to KSUM, the actual expenditure incurred, on such goods, within 15 (fifteen) days of its demand.
- c. The supplier shall be responsible for arranging the rejected goods to be removed at his/her cost from KSUM, Trivandrum premises.
- d. The supplier shall also compensate for losses, if any, sustained by KSUM due to defective packing and/or wrong marking of the goods.

We confirm with our acceptance to the Commercial & General Terms & Conditions Sl. No. 1 to 13 as given above.

Date:

Name, Signature and seal of tenderer



TENDER FORM

The Chief Executive Officer

Kerala Start-Up Mission (Formerly Technopark TBI),
G3B, Thejaswini,
Technopark Campus,
Trivandrum 695581

Dear Sir,

Sub: Bid form

Ref: Tender No.: KSUM/T/PMU/NWD/2021-22/12/27

1. Having examined the conditions of tender contract, the receipt of which is hereby duly acknowledged. i/we undersigned, offer to supply all hardware & software and execute all works in conformity with tender specifications referred above and also to the said terms & conditions from the sum shown in the commercial bid(s) attached herewith and made part of this bid.
2. I/We undertake, if our Bid is accepted to complete delivery & commissioning of all Items specified in the contract within 3 weeks calculated from the date of issue of your purchase order/LOI.
3. We understand that you are not bound to accept the lowest or any bid, you may receive.
4. I / We affirm that I / We have enclosed the acceptance of all terms and conditions and also all brochures detailing the technical specification of the items quoted by me/us.
5. I / We hereby confirm that all the items supplied are in proper working condition and tested successfully.
6. The tender document for the works mentioned above have been obtained by me from the URL: <https://startupmission.kerala.gov.in/tender> , the official website of Govt of Kerala and I / we hereby certify that I / we have read the entire terms and conditions of the tender document, which shall form part of the contract agreement and I / we shall abide by the conditions / clauses contained therein.
7. My /our GST & PAN Numbers are as follows.
8. GST Registration Number.
9. PAN Number.
10. Dated thisday of..... 201.....
11. Signature of
12. In capacity of
13. Duly authorized to sign the bid for and on behalf of -----
14. Witness 1. -----
15. Signature
16. Witness 2. -----
17. Signature

Annexure I

Technical Specification for the Supply and installation of Network devices required for PMU Project

Dual WAN Gigabit VPN Router		Compliance (Yes/No)	If No, Specify exact specification
General Details	2 WAN ports (RJ-45) for load balancing and resiliency		
	4 LAN ports for high-performance connectivity		
	2 USB ports to support a 3G/4G modem or flash drive		
Dynamic web filtering	Enables business efficiency and security while connecting to the Internet, allows Internet access policies for end devices and Internet applications to help ensure performance and security.		
Client identification	Identifies the type of connected devices and allows setting policies.		
Application visibility	Generates reports of Internet applications being used by clients and allows setting policies.		
Intrusion Prevention System (IPS)	Blocking network connections that are determined too risky for the organization.		
Security	Firewall, UTM features, Secure connectivity, Hardware-accelerated performance, Dual-WAN with load-balancing and 3G/4G failover brings resiliency and increased bandwidth, Partner- or customer-centric single pane-of-glass network management with the integration into FindIT Manager or web UI, Automated software updates		
USB	2 for flash drive (USB-3, USB-2)		
Firewall	Stateful packet inspection, up to 980 Mbps throughput for TCP and UDP		
Quality of Service (QoS)	Traffic Classes, WAN Queuing, WAN Policing, WAN Bandwidth Management		
Web Security	Dynamic web filtering: Cloud based, more than 80 categories, more than 450 million domains classified		
Intrusion Prevention System (IPS)	IDS/IPS inspects network packets, logs and blocks attacks		

VLAN	Up to 32 VLANs		
Port Security	Yes, 802.1X		
RAM	1 GB DDR3		
Flash	256 MB		
Preferred Router:	CISCO, Sonic Wall, Netgear or Equitant		

Manageable Switch			
General Details	24 10/100/1000 ports		
	4 Gigabit SFP		
	Rack-mountable		
	56Gbps Switching capacity		
Capacity in Millions of Packets per Second	above 40		
Switching Capacity in Gigabits per Second (Gbps)	above 55		
Spanning Tree Protocol	Standard 802.1d Spanning Tree support		
VLAN	4,094 VLANs simultaneously		
VLAN Translation	Must support One-to-One Mapping		
Dynamic Host Configuration Protocol	DHCP traffic to DHCP server in different VLAN, with option 82		
IPv4 routing	Up to 990 static routes and up to 128 IP interfaces		
DHCP Server	Switch functions as an IPv4 DHCP server serving IP addresses for multiple DHCP pools/scopes		
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RADIUS/TACACS+	Supports RADIUS and TACACS authentication. Switch functions as a client		
Rate limiting	Ingress policer; egress shaping and rate control; per VLAN, per port, and flow based; 2R3C policing		
EEE Compliant (802.3az)	Supports IEEE 802.3az on all copper Gigabit Ethernet ports		
Buttons	Reset button		

Cabling type	Unshielded Twisted Pair (UTP) Category 5e or better for 1000BASE-T		
Flash	256 MB		
CPU	800 MHz ARM		
DRAM	512 MB		
Preferred Switch:	CISCO, JUNIPER, Netgear or Equitant		

Wi-Fi Access point			
General Details	2x2 WiFi 6 access point		
	Aggregate throughput upto 1.5Gbps		
	Management interfaces - Ethernet & Bluetooth		
	Ethernet Interface - (1) GbE RJ45 port		
Management interfaces	Ethernet, Bluetooth		
Button	Factory reset		
WiFi standards	802.11a/b/g, WiFi 4/WiFi 5/WiFi 6		
Wireless security	WPA-PSK, WPA-Enterprise (WPA/WPA2/WPA3)		
VLAN	802.1Q		
Advanced QoS	Per-user rate limiting		
Throughput rate	2.4 GHz - >=300 Mbps		
	5 GHz - >=1201 Mbps		
Guest traffic isolation	Supported		
Preferred Access point:	CISCO, UBIQUITI, SOPHOS or Equitant		



Annexure 2

Financial Bid submission format

Sl No	Item	Qty	Unit Price	Total Amount	Brand Name
1	Network Router	1			
2	Network Manageable Switch	1			
3	Wi-Fi Access point with POE adapter with cabling	2			
GRAND TOTAL					

***The rate quoted to be inclusive of all taxes and duties**