#### NAME OF THE PARTY:

### LIMITED TENDER

Preamble Of Tender:-Electronics Corporation of Tamil Nadu Limited (ELCOT), a wholly owned Government of Tamil Nadu Undertaking is the Optional Procurement Agency of the Government of Tamil Nadu for procurement of IT related products like Computers, Printers, Other Peripherals and Software as per G.O. Ms. No. 58, Finance (BPE) Department, Dated 16.02.1999. Accordingly, ELCOT has been procuring various IT related products to all the State Government Departments / Boards / Autonomous Bodies etc. As part of the Procurement activities, ELCOT float this tender inviting bid for the Supply, Installation and commissioning of LAN Cabling work for Internet connection to various Government Departments.

### Short Title used in the Tender Document:

- 1. <u>Bidder:</u> Bidder means the party who makes a formal offer in pursuance of the tender floated.
- 2. <u>Successful Bidder:</u> Successful Bidder means the Bidder who becomes Successful through the tender process.
- 3. Day: A day means a Calendar Day.
- 4. <u>Purchaser:</u> Purchaser means the end user for whom the procurement is indented through the tender.

### Tender Schedule:

a)	Tender No.	ELCOT/PROC/LT/33817/LAN/2024-25
b)	Type of Tender	LIMITED TENDER  – Single part bid
c)	Tendered Items	Supply, installation and commissioning of LAN Cabling work for Internet connection to various Government Departments
d)	Delivery	Various Government Department
e)	Due Date & Time for Submission of Tenders	12.09.2024 @ 3.00 PM.
f)	Opening Date & Time	12.09.2024 @ 4.00 PM.

<u>EMD</u>: The EMD Amount of Rs.20,000/- (Rupees Twenty Thousand Only) along with bid should be submitted through a Demand draft drawn in favor of "Electronics Corporation of Tamil Nadu Limited", Chennai. (OR) through NEFT/RTGS to the Following Bank Account, (or) EMD is waived off for the bidder having valid MSME/NSIC/SSI for the relevant category.

Name of the Bank & Branch	State Bank of India, Saidapet
SBI A/c No.	10610747091
IFS Code	SBIN0000912
MICR No.	600002045

MODE OF DESPATCH: Tenders should be addressed to the MANAGING DIRECTOR – ELCOT (by Designation only) and superscribed with the tender number and sent in sealed cover either by Registered post with acknowledgment due or in person. Tenders received in ordinary cover without a seal will not be considered. Bids received after the due date and Time will not be accepted. Delays in postal transit will not be accepted as a valid reason for late submission. The Tender Document is not transferable to any other bidder.

IMPORTANT NOTE: TENDERER MUST SUBMIT THIS ORIGINAL TENDER DOCUMENT WITH THEIR SIGNATURE, AND SEAL WITHOUT MISSING ANY OF THE PAGES. Price bid must be submitted in the bidder's company letter head.

The tenders received on SPECIFIED DUE DATE &TIME will be opened at ELCOT, 692, Anna Salai, Nandanam, Chennai – 600 035 in the presence of the bidders who choose to be present. If sufficient response is not received on the due date of opening, ELCOT reserves its right to extend the due date for submission of tenders inviting more bids or cancel the tender.

## Items tendered:

SI. No.	Product Code	Description	
1.	33817-01	4U Wall Mount Rack	
2.	33817-02	6U Wall Mount Rack	

3.	33817-03	9U Wall Mount Rack
4.	33817-04	Power Strip 3 Pin 5A & 4 Socket with surge Protector
5.	33817-05	Power Strip 3 Pin 5A & 6 Socket
6.	33817-06	Power Strip 3 Pin 5A & 4 Socket with surge Protector
		and MCB
7.	33817-07	Power Strip 6 Pin 5/15A &12 Socket with surge
		Protector
8.	33817-08	90Cfm Fans, 115~240V AC Fan for Above racks
9.	33817-09	1U Cable Manager
10.	33817-10	CAT 6 cable 4 pair UTP Cable
11.	33817-11	CAT 6 cable 4 pair SFTP Cable
12.	33817-12	CAT6A cable 4 pair UTP Cable
13.	33817-13	Cat 6 - 24 Port fully loaded Shuttered Patch Panel
		with built-in rear cable Manager, EIA/TIA-568-C
		verified
14.	33817-14	Cat 6A - 24 Port fully loaded shuttered Patch Panel
		with built-in rearcable Manager, EIA/TIA-568-C
		complied
15.	33817-15	Cat6 key stone I/O, EIA/TIA-568-C Certified
16.	33817-16	Cat6A key stone I/O, EIA/TIA-568- C complied
17.	33817-17	Shuttered Flush mount Face plate Single socket
18.	33817-18	Shuttered Flush mount Face plate Dual socket
19.	33817-19	Back Box for Face plate
20.	33817-20	CAT 6 UTP stranded copper wire,EIA/TIA-568-C
		Certified 1M Factory Crimped Patch cord
21.	33817-21	CAT 6 UTP stranded copper wire, EIA/TIA-568-C
00	00047.00	Certified 2M Factory Crimped Patch cord
22.	33817-22	
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	333 32	,
33.	33817-33	
		2400 Mbps Throughput
22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32.	33817-22 33817-23 33817-24 33817-25 33817-26 33817-27 33817-29 33817-30 33817-31 33817-32 33817-33	CAT 6 UTP stranded copper wire, EIA/TIA-568-C Certified 3M Factory Crimped Patch cord CAT 6A UTP stranded copper wire, 1M Factory Crimped Patch cord CAT 6A UTP stranded copper wire, 2M Factory Crimped Patch cord CAT 6A UTP stranded copper wire, 3M Factory Crimped Patch cord 1" PVC/Conduit charges per mtr 50X100mm PVC Duct charges per mtr Cable laying charges per mtr L2 Managed 8 ports POE switch L2 Managed 24 ports switch L2 Managed 24 ports POE switch Enterprise Wi-Fi 6 Wireless wall / ceiling mount access Point 1800 Mbps Throughput Enterprise Wi-Fi 6 Wireless Ceiling mount access Point

34.	33817-34	Enterprise Outdoor Dual Band Wireless acces Point
		2400 Mbps Throughput
35.	33817-35	Enterprise Wireless Controller
36.	33817-36	RJ-45 Computer Socket CAT 6 Make: Anchor.
37.	33817-37	Popup Box with HDMI connector, VGA Connector, Audio connector, LAN Port, Power Ports & USB Port.
38.	33817-38	Floor standing 22U Steel Enclosure Rack

- 1) LAN Cabling Work to be carried out: Immediately based on the email confirmation from ELCOT.
- <u>2) Delivery and Installation:</u> Within 28 days from the date of issue of purchase order at the respective purchaser locations.

## 3) Price Bid Evaluation:

The total value including all taxes, duties and other charges for all the items will be taken up for Price Bid evaluation. The Bidders who quote L1 Price for the total value of items will be called as L1 Bidder. However, the L1 Bidder has to match the L1 Prices of line items in case they have not become L1 for these line items.

- 4) Validity of the Tender: One year or Rs.24,50,000/- whichever is earlier.
- 5) <u>Payment Terms</u>: 100% of the total cost of ordered items will be paid by ELCOT on behalf of the purchaser, after receipt of funds from the purchaser, on delivery on proof of delivery of the ordered items.
- 6) Liquidated Damages for Non-Fulfillment of Purchase Order: 0.25% PER Dayon the undelivered portion of the value subject to a maximum of 5%, if the supply, installation and commissioning has not been completed in full within the stipulated delivery period.

## 7) Penalty for Non-Fulfillment of conditions:

In the event of non-fulfillment or non-observance of any of the conditions stipulated in the tender document and Purchase order, the successful bidder should pay the penalty amount equivalent to 10 (ten) per cent of total value of purchase order or an amount equal to the actual loss incurred by the purchaser whichever is higher.

## 8) GFR Compliance:

The Bidder shall comply with the GFR with respect to procurement from country which shares a land border with India as per GFR Rules.

## **SPECIFICATIONS**

	1. 4U Wall Mount Rack		
	Make : Model:		
SI. No.		Specification	Technical Compliance (Yes/No)
1	Height & Dimension	Height 4U, Width 550 and Depth 450mm	
2	Material Thickness	0.8mm or better	
3	Loading capacity	25KG ± 10% or better Loading capacity	
4	Front Door	4mm toughened Glass door with Lock and Key	
5	General	Rubber Closure for cable entry holes	
		19"Adjustable rails in the front and rear, Top and bottom cable entry facility	
		Hardware Screw pocket	

,	2. 6U Wall Mount Rack			
	Make : Model:			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Height & Dimension	Height 6U, Width 550 and Depth 500mm		
2	Material Thickness	0.8mm or better		
3	Loading capacity	30KG ± 10% or better Loading capacity		
4	Front Door	4mm toughened Glass door with Lock and Key		
5	General	Rubber Closure for cable entry holes		
		19"Adjustable rails in the front and rear, Top and bottom cable entry facility		
		Hardware Screw pocket		

# 3. 9U Wall Mount Rack

Make : Model:

Parameter	Specification	Technical Compliance (Yes/No)
Height & Dimension	Height 9U, Width 550 and Depth 550mm	
Material Thickness	0.8mm or better	
Loading capacity	35KG ± 10% or better Loading capacity	
Front Door	4mm toughened Glass door with Lock and Key	
General	and rear, Top and bottom cable entry facility Hardware Screw pocket Height 9U, Width 550 and Depth 550mm	
	Height & Dimension  Material Thickness  Loading capacity  Front Door	Height & Dimension  Height 9U, Width 550 and Depth 550mm  Material Thickness  0.8mm or better  Loading capacity  35KG ± 10% or better Loading capacity  Front Door  4mm toughened Glass door with Lock and Key  Rubber Closure for cable entry holes 19"Adjustable rails in the front and rear, Top and bottom cable entry facility Hardware Screw pocket  Height 9U, Width 550 and Depth

# 10. CAT 6 cable 4 pair UTP Cable

#### Make and Model:

	Make and Model :		
SI. No.		Specification	Technical Compliance (Yes/No)
1	Standard Length	305 Meters (1000 Feet) Per Box package	
2	Cable Type	4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half separator shall not be accepted. Support for Fast and Gigabit Ethernet. Sequential meter marking shall be done in the cable.	
3	Conductor	Metal –Solid Bare copper	
4		Diameter- 23 AWG (0.57 mm +/- 0.2mm)	

	11. CAT 6 cable 4 pair SFTP Cable  Make and Model:			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Standard Length	305 Meters (1000 Feet) Per Box package		
2	Cable Type	4 Pair Shielded Foil Twisted Pair Cable, Support for Fast and Gigabit Ethernet, IEEE 802.3/5/12, Voice, ISDN,ATM 155 & 622Mbps. Sequential meter marking shall be done in the cable.		
3	Conductor	Metal –Solid Bare copper		
		Diameter- 23 AWG		

	12. CAT6A cable 4 pair UTP Cable			
	Make and Model : D-Link			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Standard Length	305 Meters (1000 Feet) Per Box package		
2	Туре	Category 6A, Unshielded Twisted 4 Pair, Sequential meter marking shall be done in the cable.		
3	Conductor	Metal –Solid Bare copper Diameter- 23 AWG		

SI. No.	Parameter	Specification	Technical Compliance (Yes/No)
1	Ports	8 x 10/100/1000Base-T + 2 x 100/1000Base-X (SFP)	
2	Performance	Shall support 20 Gbps Switching Capacity and 14.88 mbps forwarding rate	

3	ACL &Vlan Table	Shall support minimum 750 ACL Table & 4K Vlan, 8K Mac Address	
4	Vlan	Port Based Vlan, Private Vlan, IEEE802.1Q, Protocol Based Vlan, Voice Vlan	
5	Multicast Functions	IGMP v1/v2 snooping, IGMP Fast Leave	
6	Security Features	Mac Based ACL, IP based ACL, MAC-IP ACL, User- Defined ACL, Time range ACL, VLAN ACL, Port Security, ARP Binding, AAA, IEEE 802.1x, TACACS+, Radius	
7	DHCP Management	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Snooping, Option 82	
8	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard/Restriction, BPDU Forwarding, ITU-T G.8032, Loop back Detection	
9	Management Port	Must Have RJ45 Console Port ( Out of Band)	
10	Operation Management	TFTP/FTP CLI, Telnet, Console, Web/SSL (IPv4/IPv6), SSH (IPv4/IPv6), SNMPv1/v2c/v3, Private MIB interface	
11	POE Protocols	IEEE 802.3af POE(15.4W) and IEEE 802.3at POE+ (30W) support on all ports	
12	POE Budget	120 Watts or better	
13	IPv6 Features	Support IPv4/v6 Dual stack	
14	Operating Temperature	Operating Température : 0 °C ~ 40 °C (32°F ~ 104°F)	
15	Certificate	CE or FCC, UL 60950 or IEC 60950 or IS 13252	

	0. L2 Managed 24 ports switch Make & Model :			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Ports	24 x 10/100/1000Base-T Ports + 4 x 1G (SFP Slot)		
2	Performance	Shall support 56 Gbps Switch Capacity and 41.7 mbps forwarding rate		
3	ACL &VLan Table	Shall support minimum 750 ACL Table & 4K Vlan, 8K Mac Address		
4	Vlan	Port Based Vlan, Private Vlan, IEEE802.1Q, Protocol Based Vlan,VoiceVlan		
5	Multicast Functions	IGMP v1/v2 snooping, IGMP Fast Leave		
6	Security Features	Mac Based ACL, IP based ACL, MAC-IP ACL, User-Defined ACL, Time range ACL, VLAN ACL, Port Security, ARP Binding, AAA, IEEE 802.1x, TACACS+, Radius		
7	DHCP Management	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Snooping, Option 82		
8	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard/Restriction, BPDU Forwarding, ITU-T G.8032, Loop back Detection		
9	Management Port	Must Have RJ45 Console Port ( Out of Band)		
	Operation Management	TFTP/FTP CLI, Telnet, Console, Web/SSL (IPv4/IPv6), SSH (IPv4/IPv6), SNMPv1/v2c/v3, Private MIB interface		
11	IPv6 Features	Support IPv4/v6 Dual stack		
	Operating Temperature	Operating Température : 0 °C ~ 40 °C (32°F ~ 104°F)		
13	Certificate	CE or FCC, UL 60950 or IEC 60950 or IS 13252		

	1. L2 Managed 24 ports POE switch Make & Model :			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Ports	24 x 10/100/1000Base-T POE Ports + 4 x 1G (SFP Slot)		
2	Performance	Shall support 56Gbps Switch Capacity and 41.7 mbps forwarding rate		
3	ACL &VLan Table	Shall support minimum 750 ACL Table & 4K Vlan, 8K Mac Address		
4	Vlan	Port Based Vlan, Private Vlan, IEEE802.1Q, Protocol Based Vlan, Voice Vlan		
5	Multicast Functions	IGMP v1/v2 snooping, IGMP Fast Leave		
6	Security Features	Mac Based ACL, IP based ACL, MAC-IP ACL, User-Defined ACL, Time range ACL, VLAN ACL, Port Security, ARP Binding, AAA, IEEE 802.1x, TACACS+, Radius		
7	DHCP Management	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Snooping, Option 82		
8	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard/Restriction, BPDU Forwarding, ITU-T G.8032, Loop back Detection		
9	Management Port	Must Have RJ45 Console Port ( Out of Band)		
10	Operation Management	TFTP/FTP CLI, Telnet, Console, Web/SSL (IPv4/IPv6), SSH (IPv4/IPv6), SNMPv1/v2c/v3, Private MIB interface		
11	POE Protocols	IEEE 802.3af POE(15.4W) and IEEE 802.3at POE+ (30W) support on all ports		
12	POE Budget	180 Watts or better		
13	IPv6 Features	Support IPv4/v6 Dual stack		
	Operating Temperature	Operating Température : 0 °C ~ 40 °C (32°F ~ 104°F)		
15	Certificate	CE or FCC, UL 60950 or IEC 60950 or IS 13252		

# 32. Enterprise Wi-Fi 6 Wireless wall / ceiling mount access Point 1800 Mbps Throughput

SI.	Parameter	Specification	Technical
No.		Opecinication	Compliance
			(Yes/No)
1	Network protocol	IEEE wireless LAN standards	
		802.11a/n, 802.11b/g/n, 802.11ac,	
		802.11ax shall be supported	
2	Interface	1 x 10/100/1000 Base-T Gigabit PoE	
		Port	
		1 x Console Port	
3	Data Rate	5GHz radio: Dual spatial stream HE80	
		MIMO for up to 1.2Gbps wireless data	
		rate or higher	
		2.4GHz radio: Dual spatial stream	
		HE40/20 MIMO for up to 574Mbps	
4	Mirologo Toobnology	wireless data rate or higher	
4	Wireless Technology	2x2 MU-MIMO with Dual spatial	
		streams (2x2:2) or higher on both 2.4 GHz and 5GHz simultaneously	
		Channel Width - 20,40,80 MHz	
		AP should support seamless and fast	
		roaming, Airtime Fairness,	
		Bandsteering and DHCP Server	
5	Wi-Fi 6 Features required	Wi-Fi Enhanced Open	
	TVI I o i oataroo roquiroa	WMM & Wi-Fi Agile Multiband	
		WPA, WPA2, WPA3 Personal &	
		Enterprise	
		Down Link and Up-Link OFDMA	
		Individual Target Wake Time	
		WPA3 192-bit security	
		MU-MIMO	
		Cellular Data aware	
6	Wireless Antenna	AP shall support Built-in Omni-	
		Directional Antennas	
		Min 3 dBi or Higher gain antenna for 2.4	
	On a nata Manda	GHz and 5 GHz	
7	Operate Mode	Wireless AP & WDS / Bridge	
8	QOS	Should support WMM, QoS, Bandwidth	
<u>_</u>	147	Control and Traffic Priority	
9	Wireless SSID	AP should support a minimum of 16 or	
40	Devices	higher SSID.	
10	Power	AP should comply to PoE input	
4.4	Mirelese Menograms	standard 802.3af and 802.3at	
11	Wireless Management	AP Should support Management	
		console port (RJ-45/Serial) for CLI, SNMP v1, v2, v3	
		DINIVIE VI, VZ, VO	

		AP should support SNMP based monitoring. Bidder shall provide MIB for NMS integration, if required Stand alone mode & Wireless Controller mode	
12		It should support IPv6 ,Load Balancing & multicast and unicast	
13	IPv6 support	Should support IPv4 and IPv6 Dual stack.	
14	·	AP should support authentication methods: 802.11i, WEP, WPA, WPA2, WPA3 & RADIUS,WPA-EAP using TKIP, PEAP authentication, MAC & IP ACL, User/Client Isolation 802.1x, captive portal	
15	Certificate	CE, FCC	

# 33. Enterprise Wi-Fi 6 Wireless Ceiling mount access Point 3000 Mbps Throughput

SI. No.		Specification	Technical
NO.			Compliance (Yes/No)
1	Network protocol	IEEE wireless LAN standards 802.11a/n, 802.11b/g/n, 802.11ac, 802.11ax shall be supported	
2	Interface	1 x 10/100/1000/2500 Ethernet PoE Port 1 x Console Port	
3	Data Rate	5 GHz radio: Dual spatial stream HE160 MIMO for up to 2.4Gbps wireless data rate or higher 2.4 GHz radio: Dual spatial stream HE40/20 MIMO for up to 574 Mbps wireless data rate or higher	
4	Wireless Technology	2x2 MU-MIMO with Dual spatial streams (2x2:2) or higher on both 2.4GHz and 5GHz simultaneously Channel Width - 20,40,80 & 160 MHz AP should support seamless and fast roaming, Airtime Fairness, Bandsteering and DHCP Server	

5	Wi-Fi 6 Features Minimum	Wi-Fi Enhanced Open	
5	VVIII OI Catales William	WMM & Wi-Fi Agile Multiband	
		WPA, WPA2, WPA3 Personal &	
		Enterprise	
		Down Link and Up-Link OFDMA	
		Individual Target Wake Time	
		WPA3 192-bit security	
		MU-MIMO	
	M/inclose Automos	Cellular Data aware	
6	Wireless Antenna	AP shall support Built-in Internal	
		Omni-Directional Antennas	
		Min 3 dBi or Higher gain	
<u> </u>		antenna for 2.4 GHz and 5 GHz	
_	Operate Mode	Wireless AP & WDS / Bridge	
8	QOS	Should support WMM, QoS,	
		Bandwidth Control and Traffic	
		Priority	
9	Wireless SSID	AP should support a minimum of	
		16 or higher SSID.	
10	Power	AP should comply to PoE input	
		standard 802.3af/802.3at	
11	Wireless Management	AP Should support Management	
		console port (RJ-45/Serial) for	
		CLI, SNMP v1, v2,v3	
		AP should support SNMP based	
		monitoring. Bidder shall provide	
		MIB for NMS integration, if	
		required.	
		Standalone mode & Wireless	
		Controller mode	
12	Wireless Network	It should support IPv6 ,Load	
		Balancing & multicast and	
		unicast	
13	IPv6 support	Should support IPv4 and IPv6	
		Dual stack.	
14	Wireless	AP should support	
		authentication methods: 802.11i,	
		WEP, WPA , WPA2	
15	Security	AP should support	
	_	authentication methods: 802.11i,	
		WEP, WPA, WPA2, WPA3 &	
		RADIUS,WPA-EAP using TKIP,	
		PEAP authentication, MAC & IP	
		ACL, User/Client Isolation	
		802.1x, captive portal	
16	Certificate	CE, FCC	
		•	

# 34. Enterprise Outdoor Dual Band Wireless access Point 2400 Mbps Throughput

SI.	Parameter	Specification	Technical
No.		Opecinication	Compliance
			(Yes/No)
1	Network protocol	IEEE wireless LAN standards	,
	·	802.11a/n, 802.11b/g/n, 802.11ac,	
		802.11ax shall be supported	
2	Maximum Transmit Power	Min 22 dBm or Higher for 2.4 GHz & 5	
		GHz	
3	Interface	1 x 10/100/1000/2500 Ethernet PoE	
		Port	
		1 x Console Port	
4	Data Rate	5GHz radio: Dual spatial stream	
		HE160 MIMO for up to 2.4 Gbps	
		wireless data rate or higher	
		2.4GHz radio: Dual spatial stream	
		HE40/20 MIMO for up to 574 Mbps	
		wireless data rate or higher	
5	Discovery and Roaming	2x2 MU-MIMO with Dual spatial	
		streams (2x2:2) or higher on both 2.4	
		GHz and 5 GHz simultaneously	
		Channel Width – 20,40,80 & 160 MHz	
		AP should support seamless and fast	
		roaming, Airtime Fairness,	
		Bandsteering and DHCP Server	
6	Wi-Fi 6 Features required	Wi-Fi Enhanced Open	
		WMM & Wi-Fi Agile Multiband	
		WPA, WPA2, WPA3 Personal &	
		Enterprise	
		Down Link and Up-Link OFDMA	
		Individual Target Wake Time	
		WPA3 192-bit security	
		MU-MIMO	
_	<b>1 1 1 1 1 1</b>	Cellular Data aware	
7	Wireless Antenna	AP shall support Built-in Internal /	
		External Omni-Directional Antennas	
		Min 5 dBi or Higher gain antenna for	
		2.4 GHz and 7 dBi or Higher gain	
	Operate Mada	antenna for 5 GHz	
8	Operate Mode	Wireless AP & WDS / Bridge	
0	Protection Level	IP 68 or better	
9	riolection Level	IF 00 01 better	

10	Wireless SSID	AP should support a minimum of 16 or
. •		higher SSID.
11	Power	AP's should comply to PoE input
		standard 802.3af/802.3at
12	Wireless Management	Should support Management console
		port (RJ-45/Serial) for CLI, SNMP v1,
		v2, v3
		AP should support SNMP based
		monitoring. Vendor has to provide MIB
		if required for NMS integration Standalone mode & Wireless
		Controller mode
13	Wireless Accessories	AP should be quoted including all the
		installation accessories (mounting
		brackets).
14	Firmware management	Should support centralized firmware
		management from WLC
15	Ipv6 support	Should support Ipv4 and Ipv6 Dual
10	000	stack.
16	QOS	Should support WMM, QoS,
17	Wireless Sourity	Bandwidth Control and Traffic Priority
17	Wireless Security	AP should support authentication methods: 802.11i, WEP , WPA ,
		WPA2, WPA3 & RADIUS, WPA-EAP
		using TKIP, PEAP authentication,
		MAC & IP ACL, User/Client Isolation
		802.1x, captive portal
18	EMC Safety	CE, FCC
	Operating Temperature	- 30 to 60 °C

# 35. Enterprise Wireless Controller

SI. No.	Parameter	Specification	Technical Compliance (Yes/No)
1	Physical ports	4# 10/100/1000 Mbps Base-T Ports	
2	Management Ports	RJ45 Console port	
3	Hard disk	64G SSD SATA/MSATA drive/External database Support (Internal/External)	
4	AP License	Basic 16 AP License should be loaded, upgradable Maximum up to 512 AP	

Concurrent users per AC 6 AP Should support L2 and L3	
6 AP Should support L2 and L3	
	3
Discovery	
7 Should Support L2/L3 net	twork
topology between AP and	d AC
AP Should support discov	
CAPWAP accessible by AC automa	
Protocol AP should support update	
firmware and download o	f
configuration from AC	
automatically	
8 Roaming Should support Seamless	3
roaming, Fast roaming	
9 Management Features Web, CLI, Telnet and Cor	nsole
access TFTP/FTP and SS	
v1/v2 SNMPv1/v2c/v3 Ra	adius
Authentication	
Syslog (Internal & External	al) and
SNTP/NTP	,
10 Should support Portal	
authentication Should sur	oport
Authentication, customized Portal, Extern	nal
Radius/LDAP and Mac	
authentication	
11 Support 64/128 WEP, dyr	namic
WEP, TKIP, Support 802.	.11i
safety authentication, Sho	ould
Security encryption support 802.1x authentication	ation
Should support PSK mod	le,
Enterprise and	
Personal version	
12 Vlan 802.1Q, Port based vlan,	Vlan
groups	
Should Support wireless	
intrusion detection and in	trusion
Security management prevention/Support WIDS	S/WIPS
(wireless intrusion	
detection and wireless int	trusion
protection)	
14 Ipv6 Should support ICMPv6,	
Features DNSv6, Ipv6 Static route,	Ipv6
ACL	
15 Certificates CE or FCC	

	38. Floor standing 22U Steel Enclosure Rack  Make & Model :			
SI. No.	Parameter	Specification	Technical Compliance (Yes/No)	
1	Height	1176 mm		
2	Height usable	978mm		
3	Width	600mm		
4	Depth	600mm		
5	usable	520mm		

## **PRICE BID**

Nar	Name of the bidder:							
SI.	Product	Description	Qty.	Unit Price	Applicable	Applicable	Unit	
No.	Code	'	in	(including	ĠST in %	GST in	Price	
			Nos.	Packing,		Rs.	inclusive	
				Forwarding,			of GST	
				Insurance)			(5+7)	
				without			(0.7)	
				Taxes Rs.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1	33817_	, ,	1	(-)	(2)	· /	(-)	
	01	4U Wall Mount Rack	•					
2	33817-		1					
	02	6U Wall Mount Rack						
3	33817-		1					
	03	9U Wall Mount Rack	-					
4	33817-	Power Strip 3 Pin 5A	1					
	04	& 4 Socket with						
		surge Protector						
5		Power Strip 3 Pin	1					
	05	5A & 6 Socket						
6	33817-	Power Strip 3 Pin 5A	1					
	06	& 4 Socket with						
		surge Protector and						
		MCB						
7	33817-	Power Strip 6 Pin	1					
	07	5/15A &12 Socket						
		with surge Protector						
8	33817-	90Cfm Fans,	1					
	80	115~240V AC Fan						
		for Above racks						
9	33817-	111 Cable Manager	1					
	09	1U Cable Manager						
10	33817-	CAT 6 cable 4 pair	1					
		UTP Cable						
11	33817-	CAT 6 cable 4 pair	1					
	11	SFTP Cable						
12	33817-	CAT6A cable 4 pair	1					
		UTP Cable						
13	33817-	Cat 6 - 24 Port fully	1					
	13	loaded Shuttered						
		Patch Panel with						
		built-in rear cable						
		Manager, EIA/TIA-						
		568-C verified						
14	33817-	Cat 6A - 24 Port	1					

	4.4	[		<u> </u>	<u> </u>	
	14	fully loaded				
		shuttered Patch				
		Panel with built-in				
		rearcableManager,				
		EIA/TIA-568-C				
		complied				
15	33817-	Cat6 key stone I/O,	1			
	15	EIA/TIA-568-C				
		Certified				
16	33817-	Cat6A key stone I/O,	1			
	16	EIA/TIA-568- C	•			
	. •	complied				
17	33817-	Shuttered Flush	1			
''	17	mount Face plate	•			
	17	Single socket				
18	33817-	Shuttered Flush	1			
10	18		'			
	10	mount Face plate Dual socket				
10	22017					
19	33817-	Back Box for Face	1			
	19	plate				
20	33817-	1	1			
	20	copper wire, EIA/TIA-				
		568-C Certified 1M				
		Factory Crimped				
		Patch cord				
21	33817-	CAT 6 UTP stranded	1			
	21	copper wire,				
		EIA/TIA-568-C				
		Certified 2M Factory				
		Crimped Patch cord				
22	33817-	CAT 6 UTP stranded	1			
	22	copper wire, EIA/TIA-				
		568-C Certified 3M				
		Factory Crimped				
		Patch cord				
23	33817-	CAT 6A UTP	1			
	23	stranded copper				
		wire,1M Factory				
		Crimped Patch cord				
24	33817-	CAT 6A UTP	1			
	24	stranded copper	•			
		wire, 2M Factory				
		Crimped Patch cord				
25	33817-	CAT 6A UTP	1			
20	25	stranded copper	1			
	20	stratiucu coppei				

		wire 2M Eastery				
		wire,3M Factory				
00	00047	Crimped Patch cord				
26	33817-	1" PVC/Conduit	1			
07	26	charges per mtr				
27	33817-	50X100mm PVC	1			
	27	Duct charges per				
		mtr				
28	33817-	Cable laying	1			
	28	charges per mtr				
29	33817-	L2 Managed 8	1			
	29	ports POE switch				
30	33817-	L2 Managed 24	1			
	30	ports switch				
31	33817-	L2 Managed 24	1			
	31	ports POE switch				
32	33817-	Enterprise Wi-Fi 6	1			
	32	Wireless wall /				
		ceiling mount access				
		Point 1800 Mbps				
		Throughput				
33	33817-	Enterprise Wi-Fi 6				
	33	Wireless Ceiling				
		mount access Point	1			
		2400 Mbps	'			
		Throughput				
34	33817-	Enterprise Outdoor	1			
34	34	Dual Band Wireless	1			
	34	access Point 2400				
25	22047	Mbps Throughput				
35	33817-	Enterprise Wireless	1			
	35	Controller				
36		RJ-45 Computer	1			
	36	Socket CAT 6 Make:				
		Anchor.				
37	33817-	Popup Box with	1			
	37	HDMI connector,				
		VGA Connector,				
		Audio connector,				
		LAN Port, Power				
		Ports & USB Port.				
	33817-	Floor standing 22U				
38	38	Steel Enclosure	1			
L	J0	Rack				
		TOTAL				 
		· .		•	•	