



## CORRIGENDUM IV

(Tender No. TPCODL/P&S/1000000245/2022-23)

(A RATE CONTRACT FOR SITC AND MANAGEMENT OF MPLS VPN LINKS FOR TPCODL, ODISHA)

### 1.3. Calendar of Events

Sl. No	Description	Timeline
(d)	Last Date of receipt of pre-bid queries, (through mail),if any	20.10.2023; 17:00 Hours
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	26.10.2023; 17:00 Hours
(f)	Last date and time of receipt of Bids (No further Extension shall be entertained post 27 <sup>th</sup> Oct)	31.10.2023; 17:00 Hours



**ANNEXURE I**  
**Schedule for Items**

S.No.	Item Description	Revised Entry	
		UoM	Qty. for 3 Yrs.
1	Link SITC Charges (One time)	EA	130
2	Annual Recurring 200 Mbps	EA	3
3	Annual Recurring 100 Mbps	EA	3
4	Annual Recurring 50 Mbps	EA	15
5	Annual Recurring 20 Mbps	EA	84
6	Annual Recurring 10 Mbps	EA	285
7	Enterprise Router HUB Location (Data Center) (One time)	EA	1
8	Enterprise Router FIELD OFFICES (One time)	EA	129
9	Equipment Rack (one time)	EA	130
10	Shifting & Re-installation Charge from One location to other	EA	30



## **Technical Specifications for Enterprise Office Router**

### **HUB Location (DC)**

<b>Description</b>	<b>Specification</b>
Memory (default and maximum)	<ul style="list-style-type: none"><li>•DRAM: 8 GB</li><li>•Flash: 8 GB</li></ul>
Console	<ul style="list-style-type: none"><li>•Micro USB console</li><li>•RJ45.</li></ul>
IPsec VPN (Throughput)	<ul style="list-style-type: none"><li>•1 Gbps IPsec traffic</li><li>• Scalability for IPsec throughput requirements</li><li>• SSL and crypto hardware acceleration</li></ul>
Port: 10/100/1000 Gigabit Ethernet	<ul style="list-style-type: none"><li>• 4 built-in GE WAN port.</li><li>•Two Ethernet ports are Small Form-Factor Pluggable (SFP) and two are RJ45 ports, enabling fiber as well as copper connectivity</li></ul>
Core features	IPv4, IPv6, static routes, OSPF, BGP, Application Aware Routing (AAR), Traffic Engineering, service insertion, zero trust, whitelisting, tamper-proof module, DTLS/TLS, IPsec, classification, prioritization, low latency queuing, remarking, shaping, scheduling, policing, mirroring, Multicast IPv4 support, service advertisement and insertion policy, Simple Network Management Protocol (SNMP), Network Time Protocol (NTP), DNS client, DHCP, DHCP client, DHCP server, DHCP relay archival, syslog, Secure Shell (SSH), Secure Copy (SCP), Cflowd v10 IPFIX export, IPv6 for transport side, Virtual Router Redundancy Protocol (VRRP), MPLS, NAT (DIA, service-side, overload/PAT, NAT64, etc.), NAT pools, split DNS, ACLs, BFD, NETCONF over SSH, CLI, NTP server support, BFD with service-side BGP, BGP community propagation to OMP, 6 SLA for AAR

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Protocols	IPv4, IPv6, static routes, Routing Information Protocol Versions 1 and 2 (RIP and RIPv2), Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), BGP Route Reflector, Intermediate System-to-Intermediate System (IS-IS), Multicast Internet Group Management Protocol Version 3 (IGMPv3), Protocol Independent Multicast Sparse Mode (PIM SM), PIM Source-Specific Multicast (SSM), Resource Reservation Protocol (RSVP), Internet Key Exchange (IKE), ACLs, Ethernet Virtual Connections (EVC), Dynamic Host Configuration Protocol (DHCP), Frame Relay, DNS, Locator ID Separation Protocol (LISP), Hot Standby Router Protocol (HSRP), RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC), Distance Vector Multicast Routing Protocol (DVMRP), IPv4-to-IPv6 Multicast, Multiprotocol Label Switching (MPLS), Layer 2 and Layer 3 VPN, IPsec, Layer 2 Tunneling Protocol Version 3 (L2TPv3), Bidirectional Forwarding Detection (BFD), IEEE 802.1ag, and IEEE 802.3ah
Unified communications	Call Admission Control (CAC), (ISDN), RADIUS, RFC 4040-based clear channel codec signaling with Session Initiation Protocol (SIP), Resource Reservation Protocol (RSVP), RTP Control Protocol (RTCP), SIP for voice over IP (VoIP), Survivable Remote Site Telephony (SRST), Secure Real-Time Transport Protocol (SRTP), and voice modules
Authentication and security	•AES for Wi-Fi Protected Access 2 (WPA2). •802.1X, RADIUS AAA. Tacas.
External power supply	•AC input voltage: Universal 100 to 260 VAC. •Frequency: 50 to 60 Hz. •Maximum output power: 60-70W (default). •Output voltages: 12 VDC. •External output voltage: 48 VDC. • Surge protection •Both models use an internal, fixed AC power supply Power over Ethernet (PoE) is available as an option PoE ports added in the Network Interface Module (NIM) slot will require an additional external PoE power supply
Physical dimensions (H x W x D)	1 RU
Operating temperature	32° to 104°F(0° to 40°C)
Storage temperature	-40° to 150°F(-40° to 70°C)

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Relative humidity operating and noncondensing

Ambient (noncondensing) operating: 5% to 85%

### **Technical Specifications for Enterprise Office Router**

#### FIELD OFFICES

Description	Specification
Memory (default and maximum)	<ul style="list-style-type: none"><li>•DRAM: 4 GB/8 GB</li><li>•Flash: 4 GB</li></ul>
Console	<ul style="list-style-type: none"><li>•Micro USB console</li><li>•RJ45.</li></ul>
Port: 10/100/1000 Gigabit Ethernet	2 WAN Ports (GE Ports), 4 LAN Ports
Maximum clients	400 clients per access point.
Authentication and security	<ul style="list-style-type: none"><li>•AES for Wi-Fi Protected Access 2 (WPA2).</li><li>•802.1X, RADIUS AAA. Tacas.</li><li>•802.11r and 802.11i.</li></ul>
Protocols	Redundant WAN connections for failover protection and load balancing. <ul style="list-style-type: none"><li>•Dynamic failover protocols such as Virtual Router Redundancy Protocol (VRRP, Hot Standby Router Protocol (HSRP), and Multigroup HSRP</li></ul>
Throughput	encrypted traffic performance greater than 350 Mbps.

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Serial WAN interface and protocol	<ul style="list-style-type: none"><li>•Support for both synchronous and bisync modes.</li><li>•Synchronous maximum speed of up to 8 Mbps.</li><li>•Support for network clock synchronization.</li><li>•EIA-232, EIA-449, EIA-530, EIA-530A, V.35, and X.21.</li></ul>
External power supply	<ul style="list-style-type: none"><li>•AC input voltage: Universal 100 to 240 VAC.</li><li>•Frequency: 50 to 60 Hz.</li><li>•Maximum output power: 60-70W (default).</li><li>•Output voltages: 12 VDC.</li><li>•External output voltage: 48 VDC.</li><li>• Surge protection</li></ul>
Physical dimensions (H x W x D)	1 RU
Environmental operating range	<ul style="list-style-type: none"><li>•Operating temperature: 32° to 104°F (0° to 60°C).</li><li>•Operating humidity: 10% to 85% relative humidity (noncondensing).</li></ul>

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