

A RATE CONTRACT FOR SITC AND MANAGEMENT OF MPLS VPN LINKS FOR TPCODL, ODISHA (TPCODL/P&S/100000245/2022-23)

S.No.	Page No.	Detailed Reference to concerned Document . Please specify Document No / Clause No / Page No	Description as per Bid Document	Suggested Modifications /Justification	TPCODL Response
	1	2	3	4	6
1	1		Point need to be added	OEM should provide central management system for provisioning, manage, monitoring, trouble shooting, firmware upgrade Justification:This point must need to add to central manageability and log analysis system, so Tata Power can manage entire show from single pane of glass,	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
2	2		Point need to be added	Complete router can be migrated to SD-WAN whenever required, without any extra cost and changing the hardware Justification:Whenever here is more than 3-4 branches organisation moving to SD-Wan technology. For manageability and application priority this will be the utmost priority of any organisation, Later or sooner many customer moving to SD-WAN. This should be without any extra cost.	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
		Hub router			
3	13		Memory (default and maximum)	RAM 8GB and Flash 16 GB Justification: RAM depend on OS architecture designed by different OEM, it's not related to performance,	Tender Clause Stands
4	14		Console	Router should have one console port Justification:Nowdays router can be managed by any port,	Tender Clause Stands
5	15		IPsec VPN (Throughput)	10 Gbps Justification: Better IPSEC VPN thruout will be supported for seamless operations,	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
6	16		Port: 10/100/1000 Gigabit Ethernet	Interfaces Ports, 10 x GE RJ45 Ports, 2*1G SFP and 4 *10G SFP + Justification: Asked port is too low for Core/Hub router, Hub router should have multiple types of connectivity, High density port router always support better options for connectivity and future scalability	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation

7	17	Feature available	Core features	<p>The router should support the security features of DHCP Server, NAT, QOS/Traffic Shaping, QOS/Traffic Shaping, IPSEC-External, Firewall Access Rule/IPv4 Policy, BGP/Static, SDWAN, WAN failover. HA, IPSEC(Client to Site & Site to Site), SSL VPN, LDAP Integration, Radius Integration, Firewall , VPN (both) , Static and Dynamic routing (BGP & OSPF) , SDWAN , Application control and Antivirus (without updates) from day 1</p> <p>Justification: Mentioned features are important features for large deployment like Tata Power, All fetures should be provided by the bidder from day 1</p>	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
8	18		Protocols	<p>Dynamic routing protocols: RIPv1 and v2, OSPF v2 and v3, ISIS, BGP4, Supports HTTP, HTTPS, IMAPS, POP3S, SMTPS, SSL or generic TCP/UDP or IP protocols.</p> <p>Protocol type support: SCTP, TCP, UDP, ICMP, IP</p> <p>Mail protocol support: IMAP(S), POP3(S), and SMTP(S)</p> <p>AV Inspected protocols and file types:</p> <ul style="list-style-type: none"> - Support for HTTP, FTP, IMAP, POP3, SMTP, NNTP, MAPI, CIFS and SSH - Scan encrypted traffic with SSL inspection - (Password-protected) archive files, <p>Protocol enforcement: set networking services to defined ports. A violation can be set to block WAN optimization techniques: Protocol optimization and byte caching</p> <p>IPv6 Support: Management over IPv6, IPv6 routing protocols, IPv6 tunneling, firewall and UTM for IPv6 traffic, NAT46, NAT64, IPv6 IPsec VPN</p> <p>Justification: Please add these mandatory protocol for seamless routing and deployment of Tata Power, supported by all OEM's</p>	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
9	19		Unified communications	<p>Please remove this point</p> <p>Justification: Here is no use case for Tata power, and support specific OEM by these features,</p>	This clause is removed.
10	20		Authentication and security	<p>For encryption - DES, 3DES, AES128, AES192, AES256, ARIA128, ARIA192, ARIA256, SEED</p> <p>802.1X, RADIUS AAA. Tacas.</p> <p>Authentication: MD5, SHA1, SHA256, SHA384, SHA512</p> <p>Justification: These are the basic security requirements, when infrastructure needs to enable the security features,</p>	This Clause may be read As "802.1X, RADIUS AAA. Tacas."

11	21		External power supply	Should support Dual Power Supplies, Internal or External Justification: DC Router should be supported dual power supply for seamless operations,	This Caluse may be read As "•Dual redundant AC power supply voltage: Universal 100 to 260 VAC. •Frequency: 50 to 60 Hz. Max. Power Consumption-- 200W
12	22		Physical dimensions (H x W x D)	Offered device should be maximum 1U rack spaces Justification: Different router comes with different size,	Tender Clause Stands
13	23		Operating temperature	32°–104°F (0°–40°C)	
14	24		Storage temperature	-31°–158°F (-35°–70°C)	Tender Clause May be Read as "-31°–158°F (-35°–70°C)"
15	25		Relative humidity operating and noncondensing	20%–90% non-condensing	
16	26		Additional point	Router Should support 10 Gbps thruout Justification: HUB router should be with high capacity, for scalability purpose,	Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
17	27		Additional point	Dedicated management console should be provided for provisioning, manage, monitoring, trouble shooting, firmware upgrade of all router from Day 1	Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
			Spoke Router		
18	28		Memory (default and maximum)	RAM -2GB and Flash - 8GB Justification: RAM depend on OS architecture designed by different OEM, it's not related to performance,	Tender Clause Stands
19	29		Console	Console (RJ45) X 01	
20	30		Port: 10/100/1000 Gigabit Ethernet	All 10 X 10/100/1000 ETHERNET ports. ALL PORTS can be work as LAN and WAN as per configurations. Justification: Tata power should get flexibility for the use of all port as LAN and WAN, so if WAN port will faulty it can be changed, At least 10 port will be required for edge locations, so we shouldn't consider any extra switch for edge location,	Tender Caluse Stands
21	31		Maximum clients	Please remove this point Justification: Edge location should support standard bandwidth as per tender, very Few OEM only publish user number, its all depend on the bandwidth	This clause is removed.
22	32		Authentication and security	For encryption - DES, 3DES, AES128. AES192, AES256, ARIA128, ARIA192, ARIA256, SEED 802.1X, RADIUS AAA. Tacas. Authentication: MDS, SHA1, SHA256, SHA384, SHA512 Justification: These are the basic security requirements, when infrastructure needs to enable the security features,	This Caluse may be read As "802.1X, RADIUS AAA. Tacas."

23	33		Protocols	<p>Dynamic routing protocols: RIPv1 and v2, OSPF v2 and v3, ISIS, BGP4, Supports HTTP, HTTPS, IMAPS, POP3S, SMTPS, SSL or generic TCP/UDP or IP protocols.</p> <p>Protocol type support: SCTP, TCP, UDP, ICMP, IP</p> <p>Mail protocol support: IMAP(S), POP3(S), and SMTP(S)</p> <p>AV Inspected protocols and file types:</p> <ul style="list-style-type: none"> - Support for HTTP, FTP, IMAP, POP3, SMTP, NNTP, MAPI, CIFS and SSH - Scan encrypted traffic with SSL inspection - (Password-protected) archive files, <p>Protocol enforcement: set networking services to defined ports. A violation can be set to block WAN optimization techniques: Protocol optimization and byte caching</p> <p>IPv6 Support: Management over IPv6, IPv6 routing protocols, IPv6 tunnelling, firewall and UTM for IPv6 traffic, NAT46, NAT64, IPv6 IPsec VPN</p> <p>Justification: Please add these mandatory protocol for seamless routing and deployment of Tata Power, supported by all OEM's</p>	Tender Clause Stands ,Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
24	34		Throughput	<p>Should support 500 Mbps throughput from Day 1</p> <p>Justification: This bandwidth need to consider for near future scalability</p>	Tender Clause May be read as " IP sec Encrypted throughput min 350Mbps"
25	35		Serial WAN interface and protocol	<p>Please remove this point</p> <p>Justification: This is specific to a single OEM, here is no use case for Tata power for this point</p>	This clause is removed.
26	36		External power supply	<p>Power supply should be Internal/External</p>	<p>This Clause may be read as "external/internal power supply"</p> <ul style="list-style-type: none"> •AC input voltage: Universal 100 to 240 VAC. •Frequency: 50 to 60 Hz. • Surge protection"
27	37		Physical dimensions (H x W x D)	<p>Please remove this point</p> <p>Justification: Different router comes with different size,</p>	Tender Clause may be read as " 1RU or less"
28	38		Environmental operating range	<p>Operating temperature, 32°–104°F (0°–40°C)</p>	Tender Clause stands
29	39		Additional point for Management	<p>Dedicated management console should be provided for provisioning, manage, monitoring, trouble shooting, firmware upgrade of all router from Day 1</p> <p>Justification: Tata power need to view the manageability console, so can monitor entire view of the set up,</p>	

30	40	Feature available .	Additional point for Core features	Core features"The router should support the security features of DHCP Server, NAT, QOS/Traffic Shaping, QOS/Traffic Shaping, IPSEC-External, Firewall Access Rule/IPv4 Policy, BGP/Static, SDWAN, WAN failover. HA, IPSEC(Client to Site & Site to Site), SSL VPN, LDAP Integration, Radius Integration, Firewall , VPN (both) , Static and Dynamic routing (BGP & OSPF) , SDWAN , Application control and Antivirus (without updates) from day 1""Mentioned features are important features for large deployment like Tata Power, All features should be provided by the bidder from day 1" Justification: Mentioned features are important features for large deployment like Tata Power, All features should be provided by the bidder from day 1	Anything additional to this will be acceptable , however this is not mandatory requirement for evaluation
31	3	Port: 10/100/1000 Gigabit Ethernet	•4 built-in GE WAN port	i) Kindly specify the number of WAN links and bandwidth (upload/download)	Minimum Two number of WAN links and bandwidth shall be configured as per the field router deployed to meet desired SLA
32			•Two Ethernet ports are Small Form-Factor Pluggable (SFP) and two are RJ45 ports, enabling fiber as well as copper connectivity	ii) Kindly mentioned if the SFPs are needed? If yes, whether single mode	SM SFP is required
		Tech specs for Enterprise Office Router			
33	5	Maximum Client	400 clients per access point.	This is part of Wireless requirement. Kindly confirm if Router needs to have Wireless functionality as well?	This Tender clause is removed
34	5	Authentication and security	AES for Wi-Fi Protected Access 2 (WPA2)	Used in Wi-Fi setup. Kindly confirm if wireless is required in router?	This Tender clause is removed
35			802.11r and 802.11i.	Used in Wi-Fi setup. Kindly confirm if wireless is required in router?	This Tender clause is removed