

SN	Chapter No.	Page No.	Clause / Sub Clause No.	Clause Description	Change requested	Query	RailTel Response
1		12	7	Min 256MB RAM, 16MB flash, 1.5MB buffer.	Change the clause, switch shall support 8 GB RAM, 32 Mb Buffer, Flash 32 Mb	For Core Switch, We need higher RAM /Flash/Buffer for better performance	No change is proposed
2		12	8	The LAN switch shall be available with minimum Switching Fabric. 800 Gbps	Change the clause , Switch shall support 2.16 Tb/s	For Core Switch, We need higher throughput for better performance	No change is proposed
3		12	9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 600 Mpps	Change the clause , Switch shall support 1607 Mpps	For Core Switch, We need higher forwarding rate for better performance	No change is proposed
4		12	10	The LAN switch shall support minimum 32K MAC address.	Change the clause, Switch shall support 228K mac	For Core Switch, We need higher mac address for better performance	No change is proposed
5		12	16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn VTP for VLAN pruning and management. n eliminating the configuration errors & troubleshooting. It shall support GVRP /	Delete the Clause, Specific vendor features	This clause is restrictive for us to bid	As per the corrigendum-III
6		12	29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Transceiver specific clause	DDM is relevant for Transceivers, 802.3ah is supported	As per the corrigendum-III
7		13	32	The LAN switch shall have per-port broadcast, multicast, aorm control.	This clause is restrictive for us to bid. Kindly Delete	Please elaborate the requirement	No change is proposed
8		13	37	It should support Time-Based QOS	This clause is restrictive for us to bid. Kindly Delete	We can support equivalent feature i.e Policy based QoS	No change is proposed
9		13	50	It shall support port security up to 1K MAC address to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.	We don't support port security features on trunk port. Restrictive for us to bid.	This clause is restrictive for us to bid	No change is proposed
10		13	55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	This clause is restrictive for us to bid. Kindly Delete	Can be achieved through Passive solution	As per the corrigendum-III
11		13	62	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Change the clause, 1.5 kV surge on data port for copper interfaces for switches better performance	For Better surge protection it is required	As per the corrigendum-III
12		13	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	For Better surge protection it is required	As per the corrigendum-III
13		13	64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	For Better surge protection it is required	As per the corrigendum-III
14		13	70	Should support GVRP VLAN Trunking Protocol	Delete the Clause, Specific vendor features	This clause is restrictive for us to bid	As per the corrigendum-III
15		13	72	Should have the ability to disable per-VLAN MAC learning	Kindly revise this clause as - "Should have the ability to disable/control per-VLAN MAC learning"	Disabling the feature will restrict the switch management	No change is proposed
16		13	75	It should support flex link.	Kindly revise this clause as -"Switch shall support Spine/Leaf and Pod/Mesh architectures for flexible deployment."	Vendor specific Architecture	No change is proposed
17		14	85	Switch shall support Time based ACL	This clause is restrictive for us to bid. Kindly delete	We can support equivalent feature i.e Policy based QoS	No change is proposed

18		14	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter.	This clause is restrictive for us to bid. Kindly delete	We can support equivalent feature i.e Link Monitoring	As per the corrigendum-III
19		14	93	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly revise this clause as - "Switch shall support industry standard IEEE 802.3az Energy Efficient Ethernet (EEE)"	Restrictive to bid	No change is proposed
20		14	118	vii) Dying Gasp Traps or alarms	This clause is restrictive for us to bid. Kindly delete	Restrictive to bid	As per the corrigendum-III
21		14	120	i) Operating Temperature - min -5 to 50 °C	Change the clause, switch shall support 0°C to 45°C	Restrictive to bid	No change is proposed
22		14	121	ii) Storage Temperature - min -20 to 70 °C	Change the clause, switch shall support 10°C to 70°C	Restrictive to bid	No change is proposed
23		14	76	It should support TWAMP. Should support TWAMP responder and receiver for IPv6	This clause is restrictive for us to bid. Kindly delete	Restrictive to bid	No change is proposed
24		16	7	Min 256MB RAM, 16MB flash, 1.5MB buffer.	Change the clause as: switch shall support 8 GB RAM, 32 Mb Buffer, Flash 32 Mb	For Core Switch, We need higher RAM /Flash/Buffer for better performance	No change is proposed
25		16	8	The LAN switch shall be available with minimum Switching Fabric. 480 Gbps	Please revise this clause as - "Switch shall Support 1.12 Tb/s"	For Core Switch, We need higher throughput for better performance	No change is proposed
26		16	9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 300 Mpps	Please revise the clause as - "Switch shall support 833 Mpps"	For Core Switch, We need higher forwarding rate for better performance	No change is proposed
27		16	16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and management	Delete the Clause, Specific vendor features	Restrictive to bid	As per the corrigendum-III
28		17	29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Transceiver specific clause	DDM is relevant for Transceivers, 802.3ah is supported	As per the corrigendum-III
29		17	37	It should support Time-Based QOS	Specific Vendor clause, Please delete the clause	We support equivalent feature i.e Policy based QoS	No change is proposed
30		17	41	It shall support unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward	Specific Vendor clause, Please delete the clause	Restrictive to bid	No change is proposed
31		17	45	It shall support IMPB, DHCP snooping, IPSG and dynamic ARP inspection	Kindly revise the clause as - It shall support, DHCP snooping and dynamic ARP inspection or equivalent	Restrictive to bid	No change is proposed
32		17	50	It shall support port security up to 1K MAC address to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.	We don't support port security features on trunk. Restrictive for us to bid	Restrictive to bid	No change is proposed
33		17	55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	This clause is restrictive for us to bid.	Can be achieved through Passive solution	As per the corrigendum-III
34		17	54	It shall have Remote Monitoring software agent to support for enhanced traffic management, monitoring, and analysis or FNF (flexible netflow) or any industry standard.	Kindly revise this clause as - It shall have Remote Monitoring software agent/RMON or equivalent to support for enhanced traffic management, monitoring, and analysis or FNF (flexible netflow) or any industry standard.	Restrictive to bid	As per the corrigendum-III
35		17	62	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Change the clause, 1.5 kV surge on data port for copper interfaces for switches better performance	Restrictive to bid	As per the corrigendum-III

36		17	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	Restrictive to bid	As per the corrigendum-III
37		17	64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	Restrictive to bid	As per the corrigendum-III
38		17	70	Should support GVRP VLAN Trunking Protocol	Specific Vendor clause, Please delete the clause	Restrictive to bid	As per the corrigendum-III
39		17	72	Should have the ability to disable per-VLAN MAC learning	Kindly revise this clause as - "Should have the ability to disable/control per-VLAN MAC learning"	Disabling the feature will restrict the switch management	No change is proposed
40		17	76	It should support TWAMP. Should support TWAMP responder and receiver for IPv6	This clause is restrictive for us to bid. Kindly delete	Restrictive to bid	No change is proposed
41		17	85	Switch shall support Time based ACL	This clause is restrictive for us to bid. Kindly delete	We support equivalent feature i.e Policy based QoS	No change is proposed
42		17	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	This clause is restrictive for us to bid. Kindly delete	We support equivalent feature i.e Link Monitoring	No change is proposed
43		18	104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly revise this clause as - "Switch shall support industry standard IEEE 802.3az Energy Efficient Ethernet (EEE)"	Restrictive to bid	No change is proposed
44		18	120	i) Operating Temperature - min -5 to 50 °C	Change the clause, switch shall support 0°C to 45°C	Restrictive to bid	No change is proposed
45		18	121	ii) Storage Temperature - min -20 to 70 °C	Change the clause, switch shall support 10°C to 70°C	Restrictive to bid	No change is proposed
46	3	14	79	It should support In-service Software Upgrade (ISSU)		Please elaborate exact explanation of ISSU feature.	As per the corrigendum-III
47	3	14	70	Should support GVRP VLAN Trunking Protocol		Please elaborate more about GVRP Protocol.	As per the corrigendum-III
Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR)							
48			1.3	Router should be temperature hardened as it is placed at field locations	The router should be able to support 0°C to 40°C operating temperature.	this is industry standard followed by most OEMs.	As per the corrigendum-III
49			1.4	The router shall provide a non-blocked switching matrix upto system capacity.	The router shall provide a non-blocked switching matrix upto asked port capacity.	The device may have more ports than the asked requirement, so the non-blocking requirement should be only upto the asked port capacity.	Tender condition is very clear ,No Change is proposed
50			1.5	Switching and packet routing (L2 and L3) shall be wire speed on all interfaces. Performance shall not be decreased at maximum traffic load.	Switching and packet routing (L2 and L3) shall be wire speed on all asked interfaces. Performance shall not be decreased at maximum traffic load.	The device may have more ports than the asked requirement, so the wire-speed requirement should be only on the asked interfaces.	Tender condition is very clear ,No Change is proposed
51			1.11	Router shall have IP-MPLS interoperability with routers of other multiple OEMs. The product should be tested at EANTC or any other renowned LAB for INTEROPERABILITY in Multi-OEM FOR IP/MPLS. The product series/family should be deployed at least two major Service provider, Govt, Railways. Customer letter (Govt/PSU/ISP) with satisfactory performance of the offered make with IP/MPLS.	Router shall have IP-MPLS interoperability with routers of other multiple OEMs. The product series should be tested at EANTC or any other renowned LAB for INTEROPERABILITY in Multi-OEM FOR IP/MPLS. The product series/family should be deployed at least two major Service provider/ Indian Govt project / Railways. OEM Self declaration to be provided on letterhead for the same.	Please modify for wider participation	As per the corrigendum-III
52			2.2	Router shall support LDP, MPLS-TE with FRR, R-LFA, TI-LFA for sub 50 msec protection.	Router shall support LDP, MPLS-TE with FRR, TI-LFA for sub 50 msec protection.	Please modify clause for wider participation. R-LFA is not used in MPLS network.	As per the corrigendum-III
53			2.6	Router shall support performance monitoring for Layer-2 and layer-3 services (Y.1731/Y.1564, TWAMP, SAA or equivalent).	Router shall support performance monitoring for Layer-2 and layer-3 services (Y.1731/Y.1564/CFM, TWAMP/SAA or equivalent).	Please modify for wider participation	As per the corrigendum-III

54			2.7	Router shall support IPV4 and IPV6, IGMP, MLD, and PIM-SM & SSM, ECMP, NGMVPN.	Router shall support IPV4 and IPV6, IGMP, MLD, and PIM-SM & SSM, ECMP, NGMVPN / multicast LDP .	Please modify for wider participation. mLDP can be used as alternate for multicast delivery.	NGMVPN on Roadmap before Final acceptance certificate (FAC) shall also be acceptable.
55			2.9	BGP Prefix independent control (EDGE and Core).	BGP Prefix independent control (EDGE / Core).	Please modify for wider participation. PIC Edge is more commonly used and relevant as edges have lot many routes than core and edge directly impacts the customer service.	As per the corrigendum-III
56			2.10	Router shall support BFD with interval of 10ms or less	Router shall support BFD with interval of 50 ms or less.	Please modify for wider participation	As per the corrigendum-III
57			2.16	The switch/router shall support Multicast troubleshooting tools like Mtrace and mib ping or equivalent troubleshooting mechanism.	The switch/router shall support Multicast troubleshooting mechanism.	Please modify for wider participation. Different OEMs have different troubleshooting mechanisms.	No Change is proposed
58			4.4	Ingress and egress packet filtering based on L2-L4 criteria at wire speed. The possibility to log the actions on individual filter rules shall be supported.	Ingress and egress packet filtering based on L2-L4 criteria at wire speed. The possibility to log the actions shall be supported.	Please modify clause for wider participation. logging on ACL is not typically applied on all rules as it can severely impact the CPU performance.	As per the corrigendum-III
59			5.4	Minimum 500 MPLS layer-3 VPN's.	Minimum 128 MPLS layer-3 VPNs.	Please modify for wider participation	As per the corrigendum-III
60			6.1	Should comply to NEBS Level 3 specifications. / Equivalent TEC QM 333 or latest specification	Delete the clause	Please delete clause for wider participation.	No Change is proposed
61			6.3	Storage:EN300 019-2-1 class 1.2 / GR-63-CORE and GR-1089- CORE / Equivalent TEC QM 333 or latest specification	Delete the clause	Please delete clause for wider participation.	No Change is proposed
62			6.4	Transport:EN300 019-2-2 class 2.3 / GR-63-CORE and GR-1089- CORE / Equivalent TEC QM 333 or latest specification	Delete the clause	Please delete clause for wider participation.	No Change is proposed
63			6.5	In service:EN300 019-2-3 class 3.2 / GR-63-CORE and GR-1089- CORE	Delete the clause	Please delete clause for wider participation.	No Change is proposed
64			6.7	Operating temperature: 0°C to 45°C.	Operating temperature: 0°C to 40°C .	Please modify for wider participation. 40°C is commonly supported across industry.	As per the corrigendum-III
65			9.4	The router should be able to act as Path computation client in the PCE architecture defined in RFC 4655.	The router should be able to act as Path computation client in the PCE architecture defined in RFC 4655 or should support BGP-LS	Please make this clause optional with BGP-LS as BGP-LS is a more commonly deployed alternative.	As per the corrigendum-III
66			9.5	The router should support PCECP as defined in RFC5440.	The router should support PCECP as defined in RFC5440 or should support BGP-LS	Please make this clause optional with BGP-LS as BGP-LS is a more commonly deployed alternative.	As per the corrigendum-III
67			11.2	Traffic Steering of SR policies with Autoroute Include and Segment Routing TI-LFA SRLG Protection	Traffic Steering of SR policies and Segment Routing TI-LFA SRLG Protection	Please modify for wider participation	As per the corrigendum-III
68			11.3	LSP ping, trace-route, Pseudo wire Ping over Segment Routing, trace route for binding-SID	LSP ping, trace-route	Please modify for wider participation	As per the corrigendum-III
69			11.4	MPLS-LDP interworking with SR-ISIS and SR-OSPF	MPLS-LDP interworking with SR-ISIS / SR-OSPF	SR-ISIS is more commonly used. Please remove SR-OSPF or make it optional.	As per the corrigendum-III
70			11.8	Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future. SRv6-MPLS inter-working in future with software enhancement.	Delete the clause	Please delete clause for wider participation. MPLS SR is more commonly used and supported by multiple OEMs. so please remove or make the clause optional.	As per the corrigendum-III
Tier-3 Routers(8X100G) – (Item no. 7 of SOR)							
71			1	The router should be equipped with 6x 100G QSFP DD ports (supporting 2 x 100G breakout in all ports) and (8x10G SFP+ ports OR 2x100G QSFP28 ports (supporting 4 x 10G breakout in all QSFP28 ports)) . The router should have support of LR (10KM),SR(100M) ,ER(40KM) and ZR (80KM) optics on all QSFP-DD ports.	The router should be equipped with 6x 100G QSFP28 and (8x10G SFP+ ports OR 2x100G QSFP28 ports (supporting 4 x 10G breakout in all QSFP28 ports)) . The router should have support of LR (10KM),SR(100M) ,ER(40KM) and ZR (80KM) optics on all QSFP-DD ports.	200G QSFP-DD is not common in the industry. As the requirement is of 100G only, please modify the requirement to QSFP28 from QSFP-DD.	No Change is proposed

72		2	The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	The router should have option for 4x400G DWDM QSFP DD ports and 12x 10/25G by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	Please remove 50G SFP56 standard which is not common in the industry yet. Also please reduce the port count to 4 which should be sufficient for future. Also please clarify if the requirement of 400G port option is in addition to point 1 or the same 100G ports can be replaced?	As per the corrigendum-III
73		4.b	IPv6 RIB/FIB	3.5M/450K	Please modify for wider participation. Mentioned values should be more than sufficient for current and future requirements.	As per the corrigendum-III
74		4.c	MPLS Labels	32K	Please modify for wider participation. Mentioned values should be more than sufficient for current and future requirements.	No Change is proposed
75		4.h	RSVP LSP ingress/transit	10K/10K	Please modify for wider participation. Mentioned values should be more than sufficient for current and future requirements.	As per the corrigendum-III
76		4.i	Segment Routing IGP prefix Scale	10K	Please modify for wider participation. Mentioned values should be more than sufficient for current and future requirements.	As per the corrigendum-III
77		7	Router should have redundant DC (with the operating range of -40 to -72 VDC) power supply.	Router should have redundant DC (with the operating range of -40 to -60 VDC) power supply.	Please modify for wider participation. upto -60 VDC is more commonly supported.	As per the corrigendum-III
78		19.f	Round Robin, WFQ, CBWFQ scheduling algorithms	f) Round Robin, WFQ / CBWFQ scheduling algorithms	Please modify for wider participation. CBWFQ is not widely supported.	As per the corrigendum-III
79		22.f	RFC 4105 Support for Inter-Area TE	Delete the clause	Please delete for wider participation. inter-area TE is not commonly used in industry.	No Change is proposed
80		22.i	Support for LFA and Ti-LFA	Support for LFA / Ti-LFA	LFA is not used in MPLS networks so please remove it or make it optional.	As per the corrigendum-III
81		22.k	Support for RSVP fast hellos	Support for RSVP fast hellos / FRR	please modify for wider participation	As per the corrigendum-III
82		25.c	NG-MVPN (P2MP) in future if required	c) NG-MVPN (P2MP) in future if required (can be in RoadMap) / Multicast LDP	please modify for wider participation	No Change is proposed
83		26.e	RFC8669 Segment Routing Prefix SID extensions for BGP	RFC8669 Segment Routing Prefix SID extensions for BGP or RFC8660	The extension is not generally used. Please remove or make it optional with RFC8660	As per the corrigendum-III
84		26.f	RFC8360 RPKI support	RFC8360 / RFC8210 RPKI support	please modify for wider participation	As per the corrigendum-III
85		26.h	RFC2154 OSPF MD5	RFC2154 OSPF MD5 or OSPF MD5 authentication	RFC2154 was experimental RFP. Instead ask for OSPF MD5 Authentication which is more commonly used.	As per the corrigendum-III
86		28	The proposed router should be NEBS level 3 compliant. NEBS Certification is not required for PMA. However OEM has to produce certificate from standard lab approved or authorized by Govt. of India that the supplied Products are equivalent to NEBS and meet all standard and specification of NEBS.	Please remove the clause	please remove clause for wider participation.	No Change is proposed
87		29.a	EN 55022 Class A Emissions (Europe)	a) EN 55022 Class A Emissions (Europe) or EN 55032	Please modify for wider participation. EN 55032 are newer standards.	As per the corrigendum-III

88			30.e	The router should support PCECP as defined in RFC5440.	please make clause optional as the point no. 30.d	Please make it optional also as 30.d as the alternative BGP-LS asked in 30.f is more commonly used in industry.	As per the corrigendum-III
89			32	Router Should Support Dual Image/Partition with USB flash drive booting option for OS recovery	Router Should Support Dual Image/Partition with USB flash drive option for OS recovery	please modify for wider participation. USB option is still supported for recovery in slightly different way	As per the corrigendum-III
90			35	The operating system of the Routers category/series/family should be MEF-9/14 or CE(Carrier Ethernet) or latest Certified/compliant if not then roadmap for the same shall be submitted at the time of bidding.	remove the clause	A number of the MEF/carrier ethernet requirements relate to detecting/preventing layer 2 loops (MAC rewrites etc) are not required when using an ISIS-SR underlay. Therefore requesting to remove or make the clause optional.	No Change is proposed
91			39.b	Traffic Steering of SR policies with Autoroute Include and Segment Routing TI-LFA	Traffic Steering of SR policies and Segment Routing TI-LFA SRLG Protection	Please modify for wider participation	As per the corrigendum-III
92			39.c	LSP ping, trace-route over Segment Routing, trace route for binding-SID	LSP ping, trace-route	Please modify for wider participation	As per the corrigendum-III
93			39.d	MPLS-LDP interworking with SR-ISIS and SR-OSPF	MPLS-LDP interworking with SR-ISIS / SR-OSPF	SR-ISIS is more commonly used. Please remove SR-OSPF or make it optional.	As per the corrigendum-III
100G Uplink Switch(4x100G and 24x10G) - (Item no. 1 of SOR)							
94			2	24 Nos. 1/10G SFP+ , 4x Port 100G QSFP28 port.	24 Nos. 1/10G SFP+ , 2x Port 100G QSFP28 port.	for wider participation	No Change is proposed
95			6	Switch should have 02 power supply in 1+1 in redundant mode. It should support both type (-48v DC & 240v AC supply) of power supply. Any power source (-48v DC / 240v AC supply) can be inserted on the power port without any external adapter.		Please clarify if both PS types (AC and DC) needs to be provided on day-1?	Tender condition is very clear , No change is proposed
96			13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Switch should support Dying Gasp for quick troubleshooting during power failures or system shutdowns or should support graceful restart	Dying Gasp is a proprietary feature. Please remove this clause or make it optional	As per the corrigendum-III
97			15	It shall support for Automatic Negotiation of link speed and duplex to help minimize the configuration & errors.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
98			16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and management.	It shall support centralized VLAN Management through protocol or API/Ansible.	Such protocols are proprietary in nature and does not interop. So please modify clause for wider participation.	No Change is proposed
99			20	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLDv1, MLD Querier.	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLD / MLD Querier.	please modify for wider participation.	No Change is proposed
100			29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	It shall support Optical Transceiver Digital Diagnostic Monitoring, support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	No Change is proposed
101			30	It shall support configuration rollback to replace current configuration with any saved configuration file			No Change is proposed
102			31	It shall support Auto sensing speed on 10/100/1000 ports, Auto negotiating half/fullduplex on all ports and Auto-MDIX.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed

103			35	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	There shall be Shaping and Scheduling – SP, SPQ + WRR, WRR / WFQ / Weighted Deficit Round Robin (WDRR)	please modify for wider participation.	As per the corrigendum-III
104			43	It shall support IGMP filtering to provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port	It shall support IGMP filtering to limit the number of concurrent multicast streams available per port	please modify for wider participation.	No Change is proposed
105			45	It shall support IMPB, DHCP snooping, IPSG and dynamic ARP inspection	It shall support DHCP snooping, IPSG and dynamic/static ARP inspection	please modify for wider participation.	No Change is proposed
106			47	It shall support Port Mirroring (minimum 4 mirror session) based on port basis and VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected. It should support RSPAN.	It shall support Port Mirroring (minimum 4 mirror session) based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs.	please modify for wider participation.	No Change is proposed
107			55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
108			56	It shall support Unidirectional Link Detection (UDLD)	It shall support Unidirectional Link Detection (UDLD) or similar mechanism to detect unidirectional link faults.	please modify for wider participation. UDLD implementations are proprietary in nature and does not interop with other vendor. While there other open mechanism like bridge assurance and BFD that can be used for same purpose in interoperable way.	No Change is proposed
109			57	It shall have Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination	It shall have Layer 3 traceroute to ease troubleshooting by identifying the physical path that a packet takes from source to destination	trace route is a open standards based layer-3 feature. layer-2 trace is not a standard and doesn't not work in multi-oem environment.	No Change is proposed
110			60	It shall support RMON v1 and v2 standards and 4 RMON groups	It shall support RMON / SNMPv3	please modify for wider participation. RMON is a very old technology.	No Change is proposed
111			61	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management for better manageability.	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management/API for better manageability.	please modify for wider participation.	No Change is proposed
112			62	All Gigabit Ethernet ports (in case avilable) support IEC standard surge protection (6kV)	-- please remove	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
113			63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
114			64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
115			65	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
116			69	Should support authentication to allow an IP phone and a PC to authenticate on the same switch port while being placed on the appropriate voice and data VLANs.	-- please remove	As phone connectivity and its authentication is not a use case will request to remove the clause for wider participation.	No Change is proposed
117			70	Should support GVRP VLAN Trunking Protocol	Should support GVRP VLAN Trunking Protocol or API/Ansible	please modify for wider participation. GVRP is not generally used.	As per the corrigendum-III

118			71	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, Private VLAN, GVRP, GARP, IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	It should support Port-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, IP-Subnet Based VLAN.	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
119			73	Should support MAC Authentication Bypass (MAB) and WebAuth with downloadable ACLs	Should support MAC based Authentication and downloadable ACLs	please modify for wider participation. web-auth is generally used in wireless network for guest connectivity.	No Change is proposed
120			75	It should support flex link.	It should support flex link or backup link	flex link is OEM specific term	As per the corrigendum-III
121			77	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	-- please remove	please remove clause for wider participation. Rapid spanning tree is commonly supported by multiple OEMs can be considered instead for sub-second convergence.	No Change is proposed
122			79	It should support In-Service Software Upgrade (ISSU)	It should support In-Service Software Upgrade (ISSU) for HA with peer	please modify for clarity. Single switch can not be upgraded without downtime.	As per the corrigendum-III
123			84	It shall support access list based on IPv4/v6 address Protocol type IPv6 flow label VLAN-ID MAC-ID DSCP IPv6 traffic class TCP/UDP Port and User-defined packet content	It shall support access list based on IPv4/v6 address, Protocol type, VLAN-ID, MAC, DSCP, IPv6 traffic class, TCP/UDP Port	please modify for wider participation. feature mentioned are most relevant and commonly used.	No Change is proposed
124			93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Should have extensive support for IP SLA or TWAMP	please modify for wider participation.	Tender condition is very clease , No change is proposed
125			102	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	It should support DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	please modify for wider participation.	As per the corrigendum-III
126			103	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs) or should support TWAMP	please modify for wider participation.	No Change is proposed
127			104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731 or should support TWAMP	please modify for wider participation.	No Change is proposed
128			106	It should support L2 Protocol Tunneling for STP, GVRP and LACP	It should support LACP	L2 protocol tunnel for STP and GVRP are not commonly used and may be removed	No Change is proposed
129			107	Should support port and vlan mirroring and jumbo frame 9K.	Should support port / vlan mirroring and jumbo frame 9K.	please modify for wider participation.	No Change is proposed
130			117	vi) Ethernet OAM SNMP alarms.	-- please remove	please remove for wider participation	No Change is proposed
131			120	i) Operating Temperature - min -5 to 50 °C	i) Operating Temperature - min -5 to 40 °C	please modify for wider participation. 0°C is commonly supported across industry.	No Change is proposed
132			122	Switch should have safety compliance of CE, LVD	Switch should have safety compliance of CE / LVD	please modify for wider participation. CE safety compliance is commonly supported across industry.	As per the corrigendum-III
133			127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	It shall have comprehensive debugging features required for software & hardware fault diagnosis	please modify for wider participation.	No Change is proposed

134			129	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	SNMP/ monitoring Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	multiple advance mechanism like realtime push telemetry are present for monitoring. So please modify the clause to allow such mechanism instead of SNMP.	No Change is proposed, Bidder can proposed third party software/tool for the same . In that case OEM eligibility for non Hardware/Accessories items will not applicable.
40G Uplink Switch(2X40G and 24 X 10G) - (Item no. 2 of SOR)							
135			6	Switch should have 02 power supply in 1+1 in redundant mode. It should support both type (-48v DC & 240v AC supply) of power supply. Any power source (-48v DC / 240v AC supply) can be inserted on the power port without any external adapter.		Please clarify if both PS types (AC and DC) needs to be provided on day-1?	No Change is proposed
136			13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Switch should support Dying Gasp for quick troubleshooting during power failures or system shutdowns or should support graceful restart	Dying Gasp is a proprietary feature. Please remove this clause or make it optional	As per the corrigendum-III
137			15	It shall support for Automatic Negotiation of link speed and duplex to help minimize the configuration & errors.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
138			16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and management.	It shall support centralized VLAN Management through protocol or API/Ansible.	Such protocols are proprietary in nature and does not interop. So please modify clause for wider participation.	As per the corrigendum-III
139			20	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLDv1, MLD Querier.	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLD / MLD Querier.	please modify for wider participation.	No Change is proposed
140			29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	It shall support Optical Transceiver Digital Diagnostic Monitoring, support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	No Change is proposed
141			30	It shall support configuration rollback to replace current configuration with any saved configuration file			No Change is proposed
142			31	It shall support Auto sensing speed on 10/100/1000 ports, Auto negotiating half/full duplex on all ports and Auto-MDIX.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
143			35	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	There shall be Shaping and Scheduling – SP, SPQ + WRR, WRR / WFQ / Weighted Deficit Round Robin (WDRR)	please modify for wider participation.	As per the corrigendum-III
144			43	It shall support IGMP filtering to provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port	It shall support IGMP filtering to limit the number of concurrent multicast streams available per port	please modify for wider participation.	No Change is proposed
145			45	It shall support IMPB, DHCP snooping, IPSG and dynamic ARP inspection	It shall support DHCP snooping, IPSG and dynamic/static ARP inspection	please modify for wider participation.	No Change is proposed
146			47	It shall support Port Mirroring (minimum 4 mirror session) based on port basis and VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected. It should support RSPAN.	It shall support Port Mirroring (minimum 4 mirror session) based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs.	please modify for wider participation.	No Change is proposed

147			55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
148			56	It shall support Unidirectional Link Detection (UDLD)	It shall support Unidirectional Link Detection (UDLD) or similar mechanism to detect unidirectional link faults.	please modify for wider participation. UDLD implementations are proprietary in nature and does not interop with other vendor. While there other open mechanism like bridge assurance and BFD that can be used for same purpose in interoperable way.	No Change is proposed
149			57	It shall have Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination	It shall have Layer 3 traceroute to ease troubleshooting by identifying the physical path that a packet takes from source to destination	trace route is a open standards based layer-3 feature. layer-2 trace is not a standard and doesn't not work in multi-oem environment.	No Change is proposed
150			60	It shall support RMON v1 and v2 standards and 4 RMON groups	It shall support RMON / SNMPv3	please modify for wider participation. RMON is a very old technology.	No Change is proposed
151			61	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management for better manageability.	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management/API for better manageability.	please modify for wider participation.	No Change is proposed
152			63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	-- please remove	please remove clause for wider participation.	No Change is proposed
153			64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
154			65	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
155			69	Should support authentication to allow an IP phone and a PC to authenticate on the same switch port while being placed on the appropriate voice and data VLANs.	-- please remove	As phone connectivity and its authentication is not a use case will request to remove the clause for wider participation.	No Change is proposed
156			70	Should support GVRP VLAN Trunking Protocol	Should support GVRP VLAN Trunking Protocol or API/Ansible	please modify for wider participation. GVRP is not generally used.	As per the corrigendum-III
157			71	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, Private VLAN, GVRP, GARP, IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	It should support Port-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, IP-Subnet Based VLAN.	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
158			73	Should support MAC Authentication Bypass (MAB) and WebAuth with downloadable ACLs	Should support MAC based Authentication and downloadable ACLs	please modify for wider participation. web-auth is generally used in wireless network for guest connectivity.	No Change is proposed
159			75	It should support flex link.	It should support flex link or backup link	flex link is OEM specific term	As per the corrigendum-III
160			77	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	-- please remove	please remove clause for wider participation. Rapid spanning tree is commonly supported by multiple OEMs can be considered instead for sub-second convergence.	No Change is proposed
161			79	It should support In-Service Software Upgrade (ISSU)	It should support In-Service Software Upgrade (ISSU) for HA with peer	please modify for clarity. Single switch can not be upgraded without downtime.	As per the corrigendum-III

162			84	It shall support access list based on IPv4/v6 address Protocol type IPv6 flow label VLAN-ID MAC-ID DSCP IPv6 traffic class TCP/UDP Port and User-defined packet content	It shall support access list based on IPv4/v6 address, Protocol type, VLAN-ID, MAC, DSCP, IPv6 traffic class, TCP/UDP Port	please modify for wider participation. feature mentioned are most relevant and commonly used.	No Change is proposed
163			93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Should have extensive support for IP SLA or TWAMP	please modify for wider participation.	Tender condition is very clear , No change is proposed
164			102	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	It should support DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	please modify for wider participation.	As per the corrigendum-III
165			103	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs) or should support TWAMP	please modify for wider participation.	No Change is proposed
166			104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731 or should support TWAMP	please modify for wider participation.	No Change is proposed
167			106	It should support L2 Protocol Tunneling for STP,GVRP and LACP	It should support LACP	L2 protocol tunnel for STP and GVRP are not commonly used and may be removed	No Change is proposed
168			107	Should support port and vlan mirroring and jumbo frame 9K.	Should support port / vlan mirroring and jumbo frame 9K.	please modify for wider participation.	No Change is proposed
169			117	vi)Ethernet OAM SNMP alarms.	-- please remove	please remove for wider participation	No Change is proposed
170			120	i) Operating Temperature - min -5 to 50 °C	i) Operating Temperature - min -5 to 40 °C	please modify for wider participation. 0°C is commonly supported across industry.	No Change is proposed
171			122	Switch should have safety compliance of CE, LVD	Switch should have safety compliance of CE / LVD	please modify for wider participation. CE safety compliance is commonly supported across industry.	As per the corrigendum-III
172			127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	It shall have comprehensive debugging features required for software & hardware fault diagnosis	please modify for wider participation.	As per the corrigendum-III
173			129	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	SNMP/ monitoring Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	multiple advance mechanism like realtime push telemetry are present for monitoring. So please modify the clause to allow such mechanism instead of SNMP.	No Change is proposed, Bidder can proposed third party software/tool for the same . In that case OEM eligibility for non Hardware/Accessories items will not applicable.
4.A.12.1 Eligibility Criteria Requirements for OEMs:							
174			2	OEM should be ISO 9001, 14001, 27001.	- please remove	not relevant hardware (Switching router) OEMs	Tender condition is very clear , No change is proposed
175			3	OEM should be having CMMI Maturity Level certificate	- please remove	not relevant hardware (Switching router) OEMs	As per the corrigendum-III
176			4	OEM should have ISO/IEC 15408-1:2009 certificate	- please remove	not relevant hardware (Switching router) OEMs	As per the corrigendum-III
177			7	OEM should have Service Centre at min 04 locations in major cities in India.	OEM should have Service Centre / RMA depot at min 04 locations in major cities in India.	network switches/routers will be RMAed instead of serviced.	As per the corrigendum-III
178			8	The OEM should have proven facilities for Engineering, manufacture, assembly, integration and testing and basic facilities with respect to space, Engineering, Personnel, Test equipment, Manufacture, Training, Repair, Service Center Supports in the country from where the proposed equipment are planned to be supplied. OEM should have training repair and service center facilities in India.	The OEM should have proven facilities for Engineering, and basic facilities with respect to space, Engineering, Personnel, Test equipment, Training, Service Center Supports in the country from where the proposed equipment are planned to be supplied. OEM should have training and service center facilities in India.	many hardware OEMs (switches/routers) have manufacturing outsourced to ODMs. Clause is modified according to accommodate such OEMs.	No Change is proposed

179		22	Chapter-3	Supported CPU: Up to two 3rd Generation Intel Xeon scalable processor with up to 40 cores per processor	Up to two 3rd Generation Intel Xeon scalable processor or AMD EPYC with up to 40 cores per processor	Processor specification of server published in the bid are not generic, hereby promotes monopoly at the component level and restricts competition in the procurement process. Hence, we request you to change the clause and allow AMD to participate in same for healthy competition.	No Change is proposed
180	Technical specifications Chapter-3, Page-11	20	4	1. The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 8x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP).	1. The OTN device is going to utilize multiple 100G traffic on coherent optics based WAN links (6 x 100G DWDM) which means that the client interfaces dimensioning must be inline = min 10 to 12 x 100G. Hence we request to change the clause as follows: "The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 12 x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP)."		As per the corrigendum-III
				3. The OTN device hardware should support the following functionality from the day one:-	3. The OTN device hardware should support the following functionality equivalent to T3 router from the day one:-		
				a) IPv4 RIB/FIB: 128K/32K	IPv4 RIB/FIB = 2M/1M		No Change is proposed
				b) IPv6 RIB/FIB: 64K/16K	IPv6 RIB/FIB = 500k/150k		No Change is proposed
				d) Label Stack: 3	Label Stack = 8		No Change is proposed
				e) L2/L3 VPN: 500	L2/L3 VPN = 2k		No Change is proposed
				F) RSVP LSP ingress/transit: 2K/1K	RSVP LSP ingress/transit = 15K		No Change is proposed
181	Technical specifications Chapter-3, Page-11	24	6	1.6 The router shall be equipped with 8x10G SFP+ and 4x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics .	1.6 Considering current requirement and future traffic growth, we request to change the clause as follows: "The router shall be equipped with 8x10G SFP+ and 6x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics ."		No Change is proposed
				5.1 Router shall support non-blocking throughput capacity of 280 Gbps full duplex or higher.	5.1 Router shall support non-blocking throughput capacity of 800 Gbps full duplex or higher.		No Change is proposed
				6.7 Operating temperature: 0°C to 45°C.	6.7 Operating temperature: 0°C to 40°C.		As per the corrigendum-III
				10.9 The system should support REST API for communication with third party tools and applications	10.9 The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
				11.8 Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future SRv6-MPLS inter-working in future with software enhancement.	11.8 Router ASIC should be capable of supporting SR MPLS natively		As per the corrigendum-III

182	Technical specifications Chapter-3, Page-11	26	7	2. The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	2. The router is going to utilize multiple 400G traffic on coherent optics based WAN links which means that the client interfaces dimensioning must be inline = min 30 to 40 x 25/50G. Hence we request to change the clause as follows: "The router should have option for 6x400G QSFP DD/QSFP DD DWDM ports and 48x10/25/50G SFP56 by upgrading the license."		No change is proposed
				4. The router should support the following functionality from the day one:-	4. The router should support the following functionality from the day one:-		
				a) IPv4 RIB/FIB: 10M/1.5M	a) IPv4 RIB/FIB: 2M/1M		No change is proposed
				b) IPv6 RIB/FIB: 6M/750K	b) IPv6 RIB/FIB: 500k/150K		No change is proposed
				c) MPLS Labels: 50K	c) MPLS Labels: 16K		No change is proposed
				d) Label Stack: 8	d) Label Stack: 8		No change is proposed
183	Technical specifications Chapter-3, Page-11	22	5	i) The system should support REST API for communication with third party tools and applications	The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
				4. Configured CPU	4. Configured CPU		No Change is proposed
184		20	4	Latest Generation dual processor each having 10 Cores with clock speed of 2.3 GHz or better and with 15 MB cache or better	For the radius servers 10 core processor with 2.0 GHz will sufficient to run the radius servers without performance compromise Latest Generation dual processor each having 10 Cores with clock speed of 2.3 GHz or better and with 15 MB cache or better		No Change is proposed
				11. The OTN device should support IPFIX, Netflow, Jflow or equivalent if required by upgrading OS/License.	Request to consider sflow in the list 11. The OTN device should support IPFIX, Netflow, Jflow, sflow or equivalent if required by upgrading OS/License.		As per the corrigendum-III
185	Technical specifications Chapter-3, Page-11	20	4	17. Telemetry/SNMP tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple Switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	Seems compliance for Switch. However We can provide MIBs to get this integrated with Any of Tool. Pls clarify if this is for Switch or OTN Pls consider the clause as "OEM need to Provide MIBs for third party SNMP tool Integration"		Tender Condition is very clear, No change is proposed.
186	Technical specifications Chapter-3, Page-11	11	1	119. Switch should comply to following Temperature performance parameters : 120. i) Operating Temperature - min -5 to 50 °C	Since this will be placed at AC locations and hence request to consider 0 to 40 degree i) Operating Temperature - min 0 to 40 °C		No Change is proposed
187	Technical specifications Chapter-3, Page-11	20	4	18. Web based optical route planning tool for Link Planning should also be provided along with OTN device with no cost to RailTel however VMs for same will be provided by RailTel in case required.	There are open tools or online tools to perform this and hence request you to pls remove from OTN or There is excel tool to get OSNR details of the link		No Change is proposed
188		12	7	Min 256MB RAM, 16MB flash, 1.5MB buffer.	Please Change the clause, switch shall support 8 GB RAM, 32 Mb Buffer, Flash 32 Mb	For Core Switch, We need higher RAM /Flash/Buffer for better performance	No Change is proposed
189		12	8	The LAN switch shall be available with minimum Switching Fabric. 800 Gbps	Please Change the clause, Switch shall support 2.16 Tb/s	For Core Switch, We need higher throughput for better performance	No Change is proposed
190		12	9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 600 Mpps	Please Change the clause, Switch shall support 1607 Mpps	For Core Switch, We need higher forwarding rate for better performance	No Change is proposed
191		12	10	The LAN switch shall support minimum 32K MAC address.	Please Change the clause, Switch shall support 228K mac	For Core Switch, We need higher mac address for better performance	No Change is proposed

192		12	16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn VTP for VLAN pruning and management. Eliminating the configuration errors & troubleshooting. It shall support GVRP /	Specific vendor related feature, Please remove this clause	This clause is restrictive to us to bid in RFP	As per the corrigendum-III
193		12	29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Transceiver specific clause	DDM is relevant for Transceivers, 802.3ah is supported	As per the corrigendum-III
194		13	32	The LAN switch shall have per-port broadcast, multicast, Storm control.	This clause is restrictive for us to bid. Kindly Delete	Please elaborate the requirement	No Change is proposed
195		13	37	It should support Time-Based QoS	This clause is restrictive for us to bid. Kindly Delete	We can support equivalent feature i.e Policy based QoS	No Change is proposed
196		13	50	It shall support port security up to 1K MAC address to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.	We don't support port security features on trunk port. Restrictive for us to bid.	This clause is restrictive to us to bid in RFP	No Change is proposed
197		13	55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	This clause is restrictive for us to bid. Kindly Delete	Can be achieved through Passive solution	No Change is proposed
198		13	62	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Please Change the clause, 1.5 kV surge on data port for copper interfaces for switches better performance	For Better surge protection it is required	As per the corrigendum-III
199		13	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	Please Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	For Better surge protection it is required	As per the corrigendum-III
200		13	64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	Please Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	For Better surge protection it is required	As per the corrigendum-III
201		13	70	Should support GVRP VLAN Trunking Protocol	Specific vendor related feature, Please remove this clause	This clause is restrictive to us to bid in RFP	As per the corrigendum-III
202		13	72	Should have the ability to disable per-VLAN MAC learning	Kindly revise this clause as - "Should have the ability to disable/control per-VLAN MAC learning"	Disabling the feature will restrict the switch management	No Change is proposed
203		13	75	It should support flex link.	Kindly revise this clause as - "Switch shall support Spine/Leaf and Pod/Mesh architectures for flexible deployment."	Vendor specific Architecture	As per the corrigendum-III
204		14	85	Switch shall support Time based ACL	This clause is restrictive for us to bid. Kindly delete	We can support equivalent feature i.e Policy based QoS	No Change is proposed
205		14	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter,	This clause is restrictive for us to bid. Kindly delete	We can support equivalent feature i.e Link Monitoring	Tender Condition is very clear, No change is proposed.
206		14	93	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly revise this clause as - "Switch shall support industry standard IEEE 802.3az Energy Efficient Ethernet (EEE)"	This clause is restrictive to us to bid in RFP	No Change is proposed
207		14	93	vii) Dying Gasp Traps or alarms	This clause is restrictive for us to bid. Kindly delete	This clause is restrictive to us to bid in RFP	As per the corrigendum-III
208		14	120	i) Operating Temperature - min -5 to 50 °C	Please Change the clause, switch shall support 0°C to 45°C	This clause is restrictive to us to bid in RFP	No Change is proposed
209		14	121	ii) Storage Temperature - min -20 to 70 °C	Please Change the clause, switch shall support 10°C to 70°C	This clause is restrictive to us to bid in RFP	No Change is proposed
210		14	76	It should support TWAMP. Should support TWAMP responder and receiver for IPv6	This clause is restrictive for us to bid. Kindly delete	This clause is restrictive to us to bid in RFP	No Change is proposed

211		16	7	Min 256MB RAM, 16MB flash, 1.5MB buffer.	Please Change the clause as: switch shall support 8 GB RAM, 32 Mb Buffer, Flash 32 Mb	For Core Switch, We need higher RAM /Flash/Buffer for better performance	No change is proposed
212		16	8	The LAN switch shall be available with minimum Switching Fabric. 480 Gbps	Please revise this clause as - "Switch shall Support 1.12 Tb/s"	For Core Switch, We need higher throughput for better performance	No change is proposed
213		16	9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 300 Mpps	Please revise the clause as - "Switch shall support 833 Mpps"	For Core Switch, We need higher forwarding rate for better performance	No change is proposed
214		16	16	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and managemen	Specific vendor related feature, Please remove this clause	This clause is restricit us to bid in RFP	As per the corrigendum-III
215		17	29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Transceiver specific clause	DDM is relevant for Transceivers, 802.3ah is supported	As per the corrigendum-III
216		17	37	It should support Time-Based QOS	Specific vendor related feature, Please remove this clause	We support equivalent feature i.e Policy based QoS	No change is proposed
217		17	41	It shall support unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward	Specific vendor related feature, Please remove this clause	This clause is restricit us to bid in RFP	No change is proposed
218		17	45	It shall support IMPB, DHCP snooping, IPSG and dyanmic ARP inspection	Kindly revise the clause as - It shall support, DHCP snooping and dyanmic ARP inspection or equivalent	This clause is restricit us to bid in RFP	No change is proposed
219		17	50	It shall support port security up to 1K MAC address to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.	We don't support port security features on trunk. Restrictive for us to bid	This clause is restricit us to bid in RFP	No change is proposed
220		17	55	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	This clause is restrictive for us to bid.	Can be achieved through Passive solution	As per the corrigendum-III
221		17	54	It shall have Remote Monitoring software agent to support for enhanced traffic management, monitoring, and analysis or FNF (flexible netflow) or any industry standard.	Kindly revise this clause as - It shall have Remote Monitoring software agent/RMON or equivalent to support for enhanced traffic management, monitoring, and analysis or FNF (flexible netflow) or any industry standard.	This clause is restricit us to bid in RFP	As per the corrigendum-III
222		17	62	All Gigabit Ethernet ports (in case avilable) support IEC standard surge protection (6kV)	Please Change the clause, 1.5 kV surge on data port for copper interfaces for swiches better performarnce	This clause is restricit us to bid in RFP	As per the corrigendum-III
223		17	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	Please Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	This clause is restricit us to bid in RFP	As per the corrigendum-III
224		17	64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	Please Change the clause, as per IEEE 802.3 Hipot requirement and 1.5 kV surge on data port for copper interfaces	This clause is restricit us to bid in RFP	As per the corrigendum-III
225		17	70	Should support GVRP VLAN Trunking Protocol	Specific vendor related feature, Please remove this clause	This clause is restricit us to bid in RFP	As per the corrigendum-III
226		17	72	Should have the ability to disable per-VLAN MAC learning	Kindly revise this clause as - "Should have the ability to disable/control per-VLAN MAC learning"	Disabling the feature will restrict the switch management	No change is proposed

227		17	76	It should support TWAMP. Should support TWAMP responder and receiver for IPv6	This clause is restrictive for us to bid. Kindly delete	Restrictive to bid	No change is proposed
228		17	85	Switch shall support Time based ACL	This clause is restrictive for us to bid. Kindly delete	We support equivalent feature i.e Policy based QoS	No change is proposed
229		17	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	This clause is restrictive for us to bid. Kindly delete	We support equivalent feature i.e Link Monitoring	No change is proposed
							No change is proposed
230		18	104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly revise this clause as - "Switch shall support industry standard IEEE 802.3az Energy Efficient Ethernet (EEE)"	This clause is restrictive to us to bid in RFP	No change is proposed
231		18	120	i) Operating Temperature - min -5 to 50 °C	Please Change the clause, switch shall support 0°C to 45°C	This clause is restrictive to us to bid in RFP	No change is proposed
232		18	121	ii) Storage Temperature - min -20 to 70 °C	Please Change the clause, switch shall support 10°C to 70°C	This clause is restrictive to us to bid in RFP	No change is proposed
233		38	Chap-4A, Clause 4.A.12.1	3. OEM should be having CMMI Maturity Level certificate	Since SFP is considered as Accessories item. This should not be Mandatory for SFP OEM	Certificate should be applicable for Electronics product	As per the corrigendum-III
234		38	Chap-4A, Clause 4.A.12.1	4. OEM should have ISO/IEC 15408-1:2009 certificate	Since SFP considered as accessories item. This should not be Mandatory for SFP OEM	Certificate should be applicable for Electronics product	As per the corrigendum-III
235		38	Chap-4A, Clause 4.A.12.1	2. OEM should be ISO 9001, 14001, 27001.	Pls consider the OEM who have already applied for the same. Necessary Supporting documents will be submitted		No Change is proposed
236		38	Chap-4A, Clause 4.A.12.1	3. OEM should be having CMMI Maturity Level certificate	CMMI is not really relevant for us being software company and hence request to give us relaxation here		As per the corrigendum-III
237		11	Chapter-3, 1.2	Is I&C & integration is part of scope? What is the meaning of Integration (Supervision)?			Tender Condition is very clear, No change is proposed.
238		11	Chapter-3, 1.2	only 4 location name mentioned against 5			
239	B/Item-2/Point No 2	16	Chapter-3	2) 40G Uplink Switch(2X40G and 24 X 10G) - (Item no. 2 of SOR) under this the requirement is mentioned in point no. 2 as "16 Nos. 1/10G SFP+, 2 Port 40G QSFP+ port- need clarification whether we need to consider 24X10G port or 16X10G port"		Which point needs to be considered as there is difference in what is stated as description of item-2 and what is required as per point 2 under it. 2) 40G Uplink Switch(2X40G and 24 X 10G) - (Item no. 2 of SOR) OR	As per the corrigendum-III
240			Item no. 5 of SOR	1 or 2U rack mounted	Please change to 2U Rack Mounted to accommodate more slots for future expansion.		No Change is proposed
241				3 years On-site comprehensive warranty with 24x7x365 remote hardware support. Post installation, 3-year product warranty should reflect in the support web site of the OEM.	5 years On-site comprehensive warranty with 24x7x365 remote hardware support. Post installation, 5-year product warranty should reflect in the support web site of the OEM.		No Change is proposed
242			Services		The Proposed OEMs must have R&D center in India with TAC center in India along with India Toll free number. This is important to have robust support and better uptime.		No Change is proposed
243			Services		The OEM should have presence in India for the past 15 years.		No Change is proposed
244			Services		The OEM should have min. 20 spare depots spread across India including Metro cities. The spare depot list to be provided in the RFP response, which should be legally signed by the OEM legal entity.		No Change is proposed

245			7	The LAN Switch should support below specs: Min 256MB RAM, 16MB flash, 1.5MB buffer.	For better performance in the switch, kindly change, The LAN Switch should support below specs: Min 8GB RAM, 16GB flash, 16MB buffer.		No change is proposed
246			8	The LAN switch shall be available with minimum Switching Fabric. 800 Gbps	As per current port requirement, kindly find Switching capacity should be $(400+240) \times 2 = 640 \times 2 = 1280$ Gbps		No change is proposed
247			9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 600 Mpps	As per current port requirement, kindly find forwarding rate should be $=640 \times 1.488 = 952$ Mpps		No change is proposed
248			13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Kindly Add Dying GASP or Onboard Failure Logging on Switch or equivalent like "Core Dump"		As per the corrigendum-III
249			14	The LAN switch shall support IEEE 802.1Q VLAN up to 255 Active VLANs and 4094 VLAN ID.	Kindly change to 1K Active VLAN in Switch		No change is proposed
250			29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Kindly change link layer monitoring and diagnostics through 802.3ah or UDLD, IPSLA		As per the corrigendum-III
251			34	There shall be supports WRR, WRED, SP, and WRR+SP	Kindly change to WRR or WRED or SRR		As per the corrigendum-III
252			35	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	Kindly change to WRR or WRED or SRR		As per the corrigendum-III
253			62	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Optical port, so no immune to surge, kindly delete		As per the corrigendum-III
254			65	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Kindly change link layer monitoring and diagnostics through 802.3ah or UDLD, IPSLA		As per the corrigendum-III
255			70	Should support GVRP VLAN Trunking Protocol	Kindly allow GVRP or VTP		As per the corrigendum-III
256			71	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, Private VLAN, GVRP, GARP, IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	Kindly allow ISM-VLAN (MVR) or IGM Filtering, GVRP / GARP / VTP for larger participation or Equivalent protocol like IGMP Filtering		As per the corrigendum-III
257			77	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	G8032 or ERPS or equivalent Ring protection mechanism like RSTP/MSTP		No change is proposed
258			79	It should support In-Service Software Upgrade (ISSU)	ISSU is applicable for chassis based solution with Dual supervisor. Since these are single RU fixed switches, kindly delete this requirement		As per the corrigendum-III
259			85	Switch shall support Time based ACL	Kindly delete this for larger participation		No change is proposed
260			88	It shall support new tools such as Remote Defect Indication, Alarm Report, one-way or two-way Delay Measurement, Packet Loss measurement, and in-service diagnostics tools.	Kindly change Remote defect indication or UDLD, IPSLA		No change is proposed
261			102	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	Kindly delete DHCP option 66 and 67 for larger participation		As per the corrigendum-III
262			103	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	Kindly change link layer monitoring and diagnostics through 802.1ag or UDLD, IPSLA		No change is proposed
263			104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly change link layer monitoring and diagnostics through 802.3ah/Y.1731 or UDLD, IPSLA		No change is proposed

264			106	It should support L2 Protocol Tunneling for STP,GVRP and LACP	Kindly allow GVRP or VTP		As per the corrigendum-III
265			117	vi)Ethernet OAM SNMP alarms.	Kindly change Eth OAM or UDLD, IPSLA related alarm		No change is proposed
266			118	vii)Dying Gasp Traps or alarms	Kindly Add Dying GASP or Onboard Failure Logging on Switch or equivalent like "Core Dump"		As per the corrigendum-III
267			120	i) Operating Temperature - min -5 to 50 °C	Kindly allow Operating temperature: 0°C to 45°C, inline with the router requirement		No change is proposed
268			127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Kindly Add Dying GASP or Onboard Failure Logging on Switch or equivalent like "Core Dump"		As per the corrigendum-III
269							
270				2) 40G Uplink Switch(2X40G and 24 X 10G) - (Item no. 2 of SOR)			As per the corrigendum-III
271			2	16 Nos. 1/10G SFP+ , 2 Port 40G QSFP+ port.	Kindly change port requirement to 12x1/10G and 2x40G for larger participation		As per the corrigendum-III
272			7	The LAN Switch should support below specs: Min 256MB RAM, 16MB flash, 1.5MB buffer.	For better performance in the switch, kindly change, The LAN Switch should support below specs: Min 8GB RAM, 16GB flash, 16MB buffer.		No Change is proposed
273			8	The LAN switch shall be available with minimum Switching Fabric. 480 Gbps	As per current port requirement, kindly find Switching capacity should be (80+240)x2 =300 x2 = 600 Gbps		No Change is proposed
274			9	The LAN switch shall have minimum packet forwarding rate at 64-byte packet length 300 Mpps	As per current port requirement, kindly find forwarding rate should be =300x1.488=450 Mpps		No Change is proposed
275			13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Kindly Add Dying GASP or Onboard Failure Logging on Switch or equivalent like "Core Dump"		As per the corrigendum-III
276			14	The LAN switch shall support IEEE 802.1Q VLAN up to 255 Active VLANs and 4094 VLAN ID.	Kindly change to 1K Active VLAN in Switch		No Change is proposed
277			29	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	Kindly change link layer monitoring and diagnostics through 802.3ah or UDLD, IPSLA		As per the corrigendum-III
278			34	There shall be supports WRR, WRED, SP, and WRR+SP	Kindly change to WRR or WRED or SRR		As per the corrigendum-III
279			35	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	Kindly change to WRR or WRED or SRR		As per the corrigendum-III
280			62	All Gigabit Ethernet ports (in case avilable) support IEC standard surge protection (6kV)	Optical port, so no imune to surge, kindly delete		As per the corrigendum-III
281			65	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Kindly change link layer monitoring and diagnostics through 802.3ah or UDLD, IPSLA		As per the corrigendum-III
282			70	Should support GVRP VLAN Trunking Protocol	Kindly allow GVRP or VTP		As per the corrigendum-III
283			71	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Survilance VLAN, Private VLAN, GVRP, GARP,IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	Kindly allow ISM-VLAN (MVR) or IGM Filtering, GVRP / GARP / VTP for larger participation or Equivalent protocol like IGMP Filtering		As per the corrigendum-III
284			77	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	G8032 or ERPS or equivalent Ring protection mechanism like RSTP/MSTP		No change is proposed

285			79	It should support In-Service Software Upgrade (ISSU)	ISSU is applicable for chassis based solution with Dual supervisor. Since these are single RU fixed switches, kindly delete this requirement		As per the corrigendum-III
286			85	Switch shall support Time based ACL	Kindly delete this for larger participation		No change is proposed
287			88	It shall support new tools such as Remote Defect Indication, Alarm Report, one-way or two-way Delay Measurement, Packet Loss measurement, and in-service diagnostics tools.	Kindly change Remte defect indication or UDLD, IPSLA		No change is proposed
288			102	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	Kindly delete DHCP option 66 and 67 for larger participation		As per the corrigendum-III
289			103	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	Kindly change link layer monitoring and diagnostics through 802.1ag or UDLD, IPSLA		No change is proposed
290			104	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	Kindly change link layer monitoring and diagnostics through 802.3ah/Y.1731 or UDLD, IPSLA		No change is proposed
291			106	It should support L2 Protocol Tunneling for STP,GVRP and LACP	Kindly allow GVRP or VTP		As per the corrigendum-III
292			117	vi)Ethernet OAM SNMP alarms.	Kindly change Eth OAM or UDLD, IPSLA related alarm		No change is proposed
293			120	i) Operating Temperature - min -5 to 50 °C	Kindly allow Operating temperature: 0°C to 45°C, inline with the router requirement		As per the corrigendum-III
294			127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Kindly Add Dying GASP or Onboard Failure Logging on Switch or equivalent like "Core Dump"		As per the corrigendum-III
295							
296				7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR)			
297			1	The router should equipped with 6x 100G QSFP DD ports (supporting 2 x 100G breakout in all ports) and (8x10G SFP+ ports OR 2x100G QSFP28 ports (supporting 4 x 10G breakout in all QSFP28 ports)) . The router should have support of LR (10KM), SR(100M), ER(40KM) and ZR (80KM) optics on all QSFP-DD ports.	The router should have 6 x QSFP DD ports supporting 4 x 100G breakout in all ports or direct 24 numbers of 100G QSFP28/QSFP-DD ports. The router should have support of LR (10KM), SR(100M), ER(40KM) and ZR (80KM) optics on all QSFP-DD ports. The router should have 16 x SFP56 ports supporting 1G, 10G, 25G and 50G speeds. The router should have 10 x SFP+ ports supporting 10G speed		No Change is proposed
298			2	The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	The router should have support of 3x400G DWDM, out of above six number of QSFP DD ports, by upgrading the license/OS/Optics . 400G QSFP DD ports should support ZR & ZR+ 400G optics. The router should have 16 x SFP56 ports supporting 1G, 10G, 25G and 50G speeds.		As per the corrigendum-III
299			3	The Router Hardware should support at least 3.2 Tbps (Full Duplex) throughput rate .	kindly change: The Router Hardware should support at least 2.4 Tbps (Full Duplex) throughput rate .		No Change is proposed
300			4	f) Packet Forwarding Rate : 2 Bpps	f) Packet Forwarding Rate : 1 Bpps		No Change is proposed
301			4	g) Firewall Filters: Ingress 2K/Egress 8K	g) Firewall Filters: 4K ACE		No Change is proposed
302				New	kindly add Queues should be added: 6K		No Change is proposed
303				New	kindly add Router to support GRE tunnels (RFC 2784)		No Change is proposed
304				New	kindly add Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future .		No Change is proposed
305				New	kindly add SRv6-MPLS inter-working in future with software enhancement.		No Change is proposed

306				8) QSFP28 LR4 – (Item no. 8 of SOR)	Kindly suggest the requirement is for QSFP28 LR4 or QSFP28 LR for 100G line rate with LC connectors. Please note following difference between two types, as per industry standard: QSFP28 100G LR: 100 Gigabit Ethernet signal is carried over a single wavelength. QSFP28 100G LR4: 100 Gigabit Ethernet signal is carried over four wavelength channels, each 25G, optically multiplexed and de-multiplexed within the transceivers		No Change is proposed
307				OEM Eligibility			
308			4.A.12.1 (3)	OEM should be having CMMI Maturity Level certificate	CMMI Matuarity is applicable for Service organizations and for process improvemmet. Not applicable for Network solution providers ,hardware manufacturers. Request you to kindly remove this criteria.		As per the corrigendum-III
309			4.A.12.1 (4)	OEM should have ISO/IEC 15408-1:2009 certificate	ISO/IEC 15408-1:2009 for IT Products. Kindly allow Common Crtieria certification at the OS level from the same series or family of product.		As per the corrigendum-III
310			4.A.12.1 (5)	The Equipment offered by the OEM or equipment of the same series/family from the same OEM should have received PO or supply record from any Government/PSUs/Telecom Service Providers network in India.	We sell our products through our authorised channel parters and not directly to the end customers. Hense, we don't get an access to the end user PO or supply record. Kindly allow us to submit letter from the end customer (Government/PSUs/Telecom) mentioing OEM or equipment of the same series/family from the same OEM are being used.		No Change is proposed
311	Chapter 3		1	The router should equipped with 6x 100G QSFP DD ports (supporting 2 x 100G breakout in all ports) and (8x10G SFP+ ports OR 2x100G QSFP28 ports (supporting 4 x 10G breakout in all QSFP28 ports)) . The router should have support of LR (10KM),SR(100M) ,ER(40KM) and ZR (80KM) optics on all QSFP-DD ports.		Request Railtel to Clarify that Day 1 requirement of the Device Capacity is 6*100G+8*10G=680Gbps or 6*200G+8*10G=1280Gbps.	Tender Condition is very Clease , No Change is proposed
312	Chapter 3		4(g)	Firewall Filters	Ingress 2K/Egress 8K	In Production Network, More Firewall Filters are required on the Ingress than Egress. Hence, Request Railtel to Modify the requirement as "Ingress 8K/Egress 2K"	As per the corrigendum-III
313	Chapter 3		29(a)	The device should comply to the following safety standards a) EN 55022 Class A Emissions (Europe)		EN55032 is the new standard for EMC emissions replacing EN55022. Hence request Railtel to allow Either of EN55032/EN55022 standards	As per the corrigendum-III
314	Chapter 3		39(d)	d) MPLS-LDP interworking with SR-ISIS and SR-OSPF		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	As per the corrigendum-III
315	Chapter 3		39(f)	f) Shall support SR and MPLS (LDP) Interworking Mapping Server		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	Feature on Roadmap before Final accpetatance certificate (FAC) shall also acceptable.

316	Chapter 3		42	Telemetry tool for performance monitoring should be provided along with Routers and Tool should also be provided for generation of configuration to multiple routers based on predefined templates . These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.		Since this Tender is for Networking Elements & this clause is related to Performance monitoring & Provisioning Tool, which outside the scope of this particular Tender. Request Railtel to Kindly exempt this clause.	No Change is proposed
317	Chapter 3		1.11	1.13 Router shall have IP-MPLS interoperability with routers of other multiple OEMs. The product should be tested at EANTC or any other renowned LAB for INTEROPERABILITY in Multi-OEM FOR IP/MPLS. The product series/family should be deployed at least two major Service provider, Govt, Railways. Customer letter (Govt/PSU/ISP) with satisfactory performance of the offered make with IP/MPLS.		Usually for interop test, every Router variant is not tested. Hence, request Railtel to modify the clause as Router/Router series to be tested for Interoperability Test.	As per the corrigendum-III
318	Chapter 3		6.1	Should comply to NEBS Level 3 specifications. / Equivalent TEC QM 333 or latest specification		Since, Tier-4 Routers are compact Form Factor. So, these can not be NEBS level 3 Complaint. Hence, request Railtel to modify the standard to NEBS Compliant.	No Change is proposed
319	Chapter 3		11.4	MPLS-LDP interworking with SR-ISIS and SR-OSPF		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	As per the corrigendum-III
320	Chapter 3		11.6	Shall support SR and MPLS (LDP) Interworking Mapping Server		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	Feature on Roadmap before Final acceptance certificate (FAC) shall also be acceptable.
321	Chapter 3		12	Telemetry tool for performance monitoring should be provided along with Routers and Tool should also be provided for generation of configuration to multiple routers based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.		Since this Tender is for Networking Elements & this clause is related to Performance monitoring & Provisioning Tool, which outside the scope of this particular Tender. Request Railtel to Kindly exempt this clause.	No Change is proposed, Bidder can propose third party software/tool for the same . In that case OEM eligibility for non Hardware/Accessories items will not be applicable.
322	Page 8 cl XII			Only Class-I & Class-II local suppliers are eligible to participate in this tender.		Request you to please allow non Class 1 & Class 2 bidders/OEM to participate.	As per the corrigendum-III
323	Chapter-3		11.8	Router ASIC should be capable of supporting SRv6 natively and inter working with SR-MPLS in future SRv6-MPLS inter-working in future with software enhancement.		Router ASIC should be capable of supporting SRv6 natively and inter working with SR-MPLS in future SRv6-MPLS inter-working in future with software enhancement.	As per the corrigendum-III
324	Chapter-3		1.6	The router shall be equipped with 8x10G SFP+ and 4x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics .		Since 8*10G interfaces at downlink contributing to 80G. 2*100G can suffice the Uplink requirement with redundancy on Day1. Request Railtel to modify the clause as " The router shall be equipped with 8x10G SFP+ and 2x40/100G (Uplink) QSFP28 Optical ports on Day1. QSFP28(Uplink) ports should be upgradable to 4*40/100G with by upgrading the license/OS/Optics/Hardware in future"	No change is proposed

325	Chapter-4 A		2	OEM should be ISO 9001, 14001, 27001		ISO27001 is a Information Security Management Certificate which is not Obligatory Certification. However, Some organizations choose to implement the standard in order to benefit from the best practice it contains. Hence, we request Railtel to exempt the requirement of Certificate for ISO27001 if the OEM is able to self declare the alignment towards ISO27001.	As per the corrigendum-III
326	Chapter-4 A		3	OEM should be having CMMI Maturity Level certificate		This certificate is mainly for the software companies. Hence, request you to relax the statement	As per the corrigendum-III
327	Chapter-4 A		4	This certificate is mainly for the software companies. Hence, request you to relax the statement		ISO 15408 is the same as common criteria which is applicable on Products. We understand that Routers category/series/family should have ISO/IEC 15408-1:2009 certificate. Please confirm	As per the corrigendum-III
328	Chapter-4 A		4.A.22.1	All the Bidders/OEM are required to deposit Tender Cost and EMD amount as mentioned in NIT and BDS through e-Nivida Portal as "Tender Cost" & "Earnest Money". Tender cost and EMD in no other form shall be accepted.		Request you to please accept EMD in form of Bank Guarantee also	No change is proposed
329	Chapter-4 A		4.A.4.	The materials as per SOR are required to be delivered within 120 days from the issue of LOA/Purchase Order.		Request you to kindly allow 180 days for supply of materials as the delivery timelines from major OEM's has increased due to the global chipset shortage.	Currently it is 120 days.
330	Chapter-4 A		4.A.3.1	Bidder/OEM shall provide maintenance support after successful completion of the warranty obligations for a minimum period of 5 years for all the items of SOR.		Kindly clarify if Long Term Maintenance Support letter from Bidder will suffice the requirement.	No change is proposed
331	Chapter-4 A		4.A.3.2	Bidder/OEM shall be paid @ 5% (minimum) of supply cost of all the items of SOR (basic price excluding taxes, levies and all other charges) per annum towards Long Term Maintenance Support after completion of warranty period.....If the bidder wants to quote higher than 5% and cost (five year) for the same may be included in SOR .		Kindly clarify if bidder quotes a higher rate than given 5% then the whole figure for AMC quoted by bidder will be under consideration of L1 evaluation and not the 5% as given or above 5%.	No change is proposed
332	Chapter-4 A		4.A.5.1	In case of Full Supply in one lot 90% payment on full supply of the PO items would be made on re		Request you to kindly consider 100% payment with supply and submission of PRG as per the	As per the tender clause
333	Chapter-4 A		4.A.5.2	5% on PAC OR after completion of 3 month of supply			

334	Chapter-4 A		4.A.5.3	5% on FAC OR after completion of 12 month of supply OR additional Performance Bank guarantee @ 5% of issued PO/ LOA value.		submission of LBS as per the contract/LOA/PO.	
335	4A	38	Point no. 3 Clause no. 4.A.12.1	OEM should be having CMMI Maturity Level Certificate		Since we are EFP OEM and CMMI maturity level is required for software company. Requesting you to kindly remove it for SFP's line item	As per the corrigendum-III
336	4A	38	Point no. 4 Clause no. 4.A.12.2	OEM should have ISO/IEC 15408-1:2009 certificate		We have ISO 9001, 14001, 27001. Will it comply for said clause.	As per the corrigendum-III
337	XIV & Chapter-2	9	VI	Cost of any license fee required to be paid for hardware & software shall be included in the rate quoted by the tenderer. All software supplied by the bidder should have perpetual license. There shall be no post contractual liability of license fee on RailTel for hardware & software supplied by tenderer		Since no software or OS licenses are part of the BOQ, we understand this clause is not applicable. Kindly clarify incase any specific software is required to be provisioned.	Tender condition is very clear and No change is proposed
338	XIV & Chapter-2	9	XIV	In case of Equipment series/family of offered Equipment is new to RailTel, In that case Bidder/OEM should provide professional training (20 Man week) and professional OEM support services for integration of equipment with existing Network.		We request RailTel to kindly modify the clause and mention the required no. of training for respective no. of RailTel personals. This will help Bidder to plan and provide essential training to RailTel.	Tender condition is very clear and No change is proposed
368	A & CHAPTER-3	11	1.2	The scope of work would be Supply along with & Integration (Supervision) of all the networking equipment's at five locations viz New Delhi, Mumbai, Secunderabad and kolkata.		In RFP shipping location are mentioned, however bifurcation of each items for respective locations is not clearly defined. We request you to kindly share the locations and respective equipment for each location.	As per the corrigendum-III
369	A & CHAPTER-3	11	1.2	The scope of work would be Supply along with & Integration (Supervision) of all the networking equipment's at five locations viz New Delhi, Mumbai, Secunderabad and kolkata.		Kindly help with the Integration scope with existing Infra and help with the existing architecture to understand the traffic flow.	Tender condition is very clear and No change is proposed . Current RailTel Network has build with Juniper , Cisco and Nokia , Edgecore , Dlink make equipment . Proposed Equipments should be intergrated with RailTel Network.
370				Generic		Requesting you to kindly provide inputs related to desired SLA's. This will help bidders to provision required services in-line with desired SLA	Tender condition is very clear and No change is proposed
371				Generic		As per our understanding Bidder scope of work is to limited to below activities only - Supply the required equipment's (as per BoQ) - Installation/Mounting of equipment's in respective racks. - Warranty/AMC of supplied equipment's Kindly confirm or clarify incase our understanding is not correct.	Tender condition is very clear and No change is proposed
372				Generic		As per our understanding post installation of equipment's, RailTel team will install required OS/Application/DB/ services. Kindly confirm or clarify incase our understanding is not correct.	Tender condition is very clear and No change is proposed

373				Generic		As per our understanding, New equipment's will be installed in existing Racks available with Railtel at each location. Kindly confirm or clarify incase our understanding is not correct.	Tender condition is very clear and No change is proposed
374				Generic		Please confirm whether Bidder is required to provision Hard Disk retention for required servers?	Tender condition is very clear and No change is proposed
375	CHAPTER-3	22	5) Servers for Radius (Item no. 5 of SOR) / Pt.No 3	Supported CPU: Up to two 3rd Generation Intel Xeon Scalable processors with up to 40 cores per processor.		Request to change it Up to two 3rd Generation Intel XeonScalable processors or AMD EPYC with up to 40 cores per processor. (we request you to change the clause and allow AMD to participate in same for healthy competition)	Tender condition is very clear and No change is proposed
376			Pt./No 4	Latest Generation dual processor each having 10 Cores with clock speed of 2.3 GHz or better and with 15 MB cache or better		10 core cpu is not available in asked generation of processor. Request to modify the clause as "Latest Generation dual processor each having 12 Cores with clock speed of 2.1 GHz or better and with 15 MB cache or better"	Tender condition is very clear and No change is proposed
377			Pt.No 9	HW RAID Card with 8 GB Cache		For the asked no. of drives 4 GB cache should be asked and would be able to support the number of drives asked. Also there are supply constraint on 8GB cache in the Industry. Request to modify the clause as "HW RAID Card with 4 GB Cache"	Tender condition is very clear and No change is proposed
378			Pt.No 10	Max of 8 x PCIe Slots Gen4. with minimum of 4* x16 slots with support for SNAP I/O modules		SNAP I/O is proprietary for one OEM. Request you to modify the clause as - "Max of 8 x PCIe Slots Gen4. with minimum of 4* x16 slots"	Tender condition is very clear and No change is proposed
379			Pt.No 11	2* 10 GbE Base-T Ports and 2* 1G LOM ports.		Request to modify the clause as "2* 10 GbE Base-T Ports and 2* 1G ports."	Tender condition is very clear and No change is proposed
380			Pt.No 14	Support for integration with Microsoft System Center,VMware vCenter, BMC Software		We understand that intgeration asked is for SNMP / API integration. Kindly confirm.	Tender condition is very clear and No change is proposed
381			Pt.No 17	- Real-time out-of-band hardware performance monitoring & alerting - Agent-free monitoring, driver updates & configuration, power monitoring & capping,RAID management, external storage management, monitoring of FC, HBA & CNA & system health - Out-of-band hardware & firmware inventory - Zero-touch auto configuration to auto deploy a baseline server configuration profile		Specification mentioned have OEM propriety term. Request to modify the clause as - "• Real-time out-of-band hardware performance monitoring & alerting • Agent-free monitoring, driver updates & configuration, power monitoring & capping,RAID management, external storage management, monitoring of FC, HBA & CNA & system health • Out-of-band hardware & firmware inventory • configuration to auto deploy a baseline server configuration profile"	Tender condition is very clear and No change is proposed

382			Pt.No 18	- Automated hardware configuration and Operating System deployment to multiple servers. - Zero-touch repository manager and self-updating firmware system - Virtual IO management/stateless computing - Support for Redfish API for simple and secure management of scalable platform hardware		Specification mentioned have OEM propriety term. Request to modify the clause as - "Automated hardware configuration to multiple servers. - repository manager and self-updating firmware system - Support for Redfish API for simple and secure management of scalable platform hardware"	Tender condition is very clear and No change is proposed.
383			Pt.No 19	Should display system ID, status information and system error error code followed by descriptive text. LCD background should light up in different colours during normal system operation & error conditions.		Specification mentioned have OEM propriety term. Request to modify the clause as - "LED or LCD display for system status information"	Tender condition is very clear and No change is proposed.
384			Pt.No 20	Should have a cyber resilient architecture for a hardened server design for protection, detection & recovery from cyber attacks Should provide effective protection, reliable detection & rapid recovery using: -Silicon-based hardware Root of Trust -Secure default passwords - Configuration and firmware drift detection -Automatic BIOS recovery -Rapid OS recovery -System erase Configuration upgrades should be only with cryptographically signed firmware and software		Specification mentioned have OEM propriety term. Request to modify the clause as - "Should have a resilient architecture for a hardened server design for protection, detection & recovery from firmware attacks Should provide effective protection, reliable detection & rapid recovery using: -Silicon-based hardware Root of Trust -Secure default passwords - Configuration and firmware drift detection -Automatic BIOS recovery -System erase Configuration upgrades should be only with cryptographically signed firmware and software"	Tender condition is very clear and No change is proposed.
385	CHAPTER-1	6	Offer Letter	I/We offer to supply various equipment at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work within 120 days from the date of issue of Purchase Order/LOA.		Request you to amend this clause as I/We offer to supply various equipment at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work within 210 days from the date of issue of Purchase Order/LOA.	No change is proposed

386		33	4.A.3.3	Separate LOA for AMC shall be issued by RailTel 3 months prior to the completion of warranty period and separate Agreement shall be signed with the Bidder/OEM. A fresh Bank Guarantee valid for a period of 4 months beyond the completion of AMC from the date of LOA shall be required to be submitted by OEM/ Tenderer for due fulfillment of long term maintenance support obligation. Value of PBG will be 10% of the total value of issued LOA/PO for five years or will be kept as per Government of India guidelines applicable at the time of issue of LOA for AMC. This PBG of AMC shall be submitted by the bidder within 30 days from the date of issue of LOA for the AMC. In case bidder does not submit the PBG in the stipulated time period, RailTel may encash the PBG given with the original LOA.		Separate LOA for AMC shall be issued by RailTel 3 months prior to the completion of warranty period and separate Agreement shall be signed with the Bidder/OEM. A fresh Bank Guarantee valid for a period of 4 months beyond the completion of AMC from the date of LOA shall be required to be submitted by OEM/ Tenderer for due fulfillment of long term maintenance support obligation. Value of PBG will be 3% of the total value of issued LOA/PO for five years or will be kept as per Government of India guidelines applicable at the time of issue of LOA for AMC. This PBG of AMC shall be submitted by the bidder within 30 days from the date of issue of LOA for the AMC. In case bidder does not submit the PBG in the stipulated time period, RailTel may encash the PBG given with the original LOA.	Tender condition is very clear and No change is proposed.
387		33	4.A.3.4	Quarterly payment for AMC Charges would be made by RailTel after successful completion of AMC Services of that quarter and on the certificate furnished by concerned RailTel representative of the Regional General Managers/ Executive Director of the Regions.		Yearly in Advance payment for AMC Charges would be made by RailTel after successful completion of AMC Services of that quarter and on the certificate furnished by concerned RailTel representative of the Regional General Managers/ Executive Director of the Regions.	Tender condition is very clear and No change is proposed.
388		45	4.A.18.2	RailTel, if required, may enter into Rate Contract with the firm to whom the contract is awarded for catering to additional requirement of Equipment & Cards as and when arise in future. Rate Contract on the successful tenderer would be placed separately and would be operative from the date of LOA and would be valid for a period of 12 months. The validity of rate contract may be extended for further 12 months with mutual agreement. This Rate Contract would be at the same rates as finalized in main contract. During the validity of Rate Contract, RailTel will place Sub Purchase Orders for Equipment & Cards detailed in SOR, as per requirement. The total variation under Rate Contract +/- 50% of contract value shall be restricted for these SOR items . A standing Performance Bank Guarantee of Rs. 10 lakh for due fulfillment of the rate contract with validity of four		RailTel, if required, may enter into Rate Contract with the firm to whom the contract is awarded for catering to additional requirement of Equipment & Cards as and when arise in future. Rate Contract on the successful tenderer would be placed separately and would be operative from the date of LOA and would be valid for a period of 12 months. The validity of rate contract may be extended for further 12 months with mutual agreement. This Rate Contract would be at the mutual agreement . During the validity of Rate Contract, RailTel will place Sub Purchase Orders for Equipment & Cards detailed in SOR, as per requirement. The total variation	Tender condition is very clear and No change is proposed.
389	COMMERCIAL TERMS & CONDITIONS (CHAPTER 4A)	34	4.A.4. Delivery period	The materials as per SOR are required to be delivered within 120 days from the issue of LOA/Purchase Order.	Request you to kindly change/amend as below. The materials as per SOR are required to be delivered within 210 days from the issue of LOA/Purchase Order.		Tender condition is very clear and No change is proposed.

390	TECHNICAL REQUIREMENT S AND SPECIFICATION S (CHAPTER-3)	20	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR)	1. The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 8x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP).	1. The OTN device is going to utilize multiple 100G traffic on coherent optics based WAN links (6 x 100G DWDM) which means that the client interfaces dimensioning must be inline = min 10 to 12 x 100G. Hence we request to change the clause as follows: "The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 12 x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP)."		As per the corrigendum-III
391				3. The OTN device hardware should support the following functionality from the day one:-	3. The OTN device hardware should support the following functionality equivalent to T3 router from the day one:-		
				a) IPv4 RIB/FIB: 128K/32K	IPv4 RIB/FIB = 2M/1M		No change is proposed
				b) IPv6 RIB/FIB: 64K/16K	IPv6 RIB/FIB = 500k/150k		No change is proposed
				d) Label Stack: 3	Label Stack = 8		No change is proposed
				e) L2/L3 VPN: 500	L2/L3 VPN = 2k		No change is proposed
				F) RSVP LSP ingress/transit: 2K/1K	RSVP LSP ingress/transit = 15K		No change is proposed
392	TECHNICAL REQUIREMENT S AND SPECIFICATION S (CHAPTER-3)	23	6) Tier-4 Routers (4X100G and 24X10G) - (Item no. 6 of SOR)	1.6 The router shall be equipped with 8x10G SFP+ and 4x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics .	1.6 Considering current requirement and future traffic growth, we request to change the clause as follows: "The router shall be equipped with 8x10G SFP+ and 6x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics ."		No change is proposed
393		25		5.1 Router shall support non-blocking throughput capacity of 280 Gbps full duplex or higher.	5.1 Router shall support non-blocking throughput capacity of 800 Gbps full duplex or higher.		No change is proposed
394		25		6.7 Operating temperature: 0°C to 45°C.	6.7 Operating temperature: 0°C to 40°C.		As per the corrigendum-III
395		26		10.9 The system should support REST API for communication with third party tools and applications	10.9 The system should support REST-API/ Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
396		26		11.8 Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future . SRv6-MPLS inter-working in future with software enhancement.	11.8 Router ASIC should be capable of supporting SR MPLS natively		As per the corrigendum-III
397	TECHNICAL REQUIREMENT S AND SPECIFICATION S (CHAPTER-3)	26	7) Tier-3 Routers (8X100G) - (Item no. 7 of SOR)	2. The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	2. The router is going to utilize multiple 400G traffic on coherent optics based WAN links which means that the client interfaces dimensioning must be inline = min 30 to 40 x 25/50G. Hence we request to change the clause as follows: "The router should have option for 6x400G QSFP DD/QSFP DD DWDM ports and 48x10/ 25/50G SFP56 by upgrading the license."		No change is proposed
398		26		4. The router should support the following functionality from the day one:-	4. The router should support the following functionality from the day one:-		
399		26		a) IPv4 RIB/FIB: 10M/1.5M	a) IPv4 RIB/FIB: 2M/1M		No change is proposed
400		26		b) IPv6 RIB/FIB: 6M/750K	b) IPv6 RIB/FIB: 500k/150K		No change is proposed
401		26		c) MPLS Labels: 50K	c) MPLS Labels: 16K		No change is proposed
402		26		d) Label Stack: 8	d) Label Stack: 8		No change is proposed
403		30		i) The system should support REST API for communication with third party tools and applications	The system should support REST-API/ Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III

404	TECHNICAL REQUIREMENTS AND SPECIFICATIONS (CHAPTER-3)	22		1 or 2U rack mounted	Please change to 2U Rack Mounted to accommodate more slots for future expansion.		No change is proposed
405		23		3 years On-site comprehensive warranty with 24x7x365 remote hardware support. Post installation, 3-year product warranty should reflect in the support web site of the OEM.	5 years On-site comprehensive warranty with 24x7x365 remote hardware support. Post installation, 5-year product warranty should reflect in the support web site of the OEM.		No change is proposed
406				Services	The Proposed OEMs must have R&D center in India with TAC center in India along with India Toll free number. This is important to have robust support and better uptime.		No change is proposed
407				Services	The OEM should have presence in India for the part 15 years.		No change is proposed
408				Services	The OEM should have min. 20 spare depots spread across India including Metro cities. The spare depot list to be provided in the RFP response, which should be legally signed by the OEM legal entity.		No change is proposed
409	B TECHNICAL SPECIFICATIONS, CHAPTER-3	20	4) OTN device (8x100G) with SNMP support (Item no.4 of SOR), 1	The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 8x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP).	The OTN device is going to utilize multiple 100G traffic on coherent optics based WAN links (6 x 100G DWDM) which means that the client interfaces dimensioning must be inline = min 10 to 12 x 100G. Hence we request to change the clause as follows: "The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 12 x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP)."		As per the corrigendum-III
410	B TECHNICAL SPECIFICATIONS, CHAPTER-3	20	4) OTN device (8x100G) with SNMP support (Item no.4 of SOR), 3	The OTN device hardware should support the following functionality from the day one:-	The OTN device hardware should support the following functionality equivalent to T3 router from the day one:-		
				a) IPv4 RIB/FIB: 128K/32K	IPv4 RIB/FIB = 2M/1M		No change is proposed
				b) IPv6 RIB/FIB: 64K/16K	IPv6 RIB/FIB = 500k/150k		No change is proposed
				d) Label Stack: 3	Label Stack = 8		No change is proposed
				e) L2/L3 VPN: 500	L2/L3 VPN = 2k		No change is proposed
				F) RSVP LSP ingress/transit: 2K/1K	RSVP LSP ingress/transit = 15K		No change is proposed
411	B TECHNICAL SPECIFICATIONS, CHAPTER-3	23	6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR), 1.6	The router shall be equipped with 8x10G SFP+ and 4x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics .	Considering current requirement and future traffic growth, we request to change the clause as follows: "The router shall be equipped with 8x10G SFP+ and 6x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics ."		No change is proposed
412	B TECHNICAL SPECIFICATIONS, CHAPTER-3	25	6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR), 5.1	Router shall support non-blocking throughput capacity of 280 Gbps full duplex or higher.	Router shall support non-blocking throughput capacity of 800 Gbps full duplex or higher.		No change is proposed
413	B TECHNICAL SPECIFICATIONS, CHAPTER-3	25	6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR), 6.7	Operating temperature: 0°C to 45°C.	Operating temperature: 0°C to 40°C.		As per the corrigendum-III

414	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR), 10.9	The system should support REST API for communication with third party tools and applications	The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
415	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR), 11.8	Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future . SRv6-MPLS inter-working in future with software enhancement.	Router ASIC should be capable of supporting SR MPLS natively		As per the corrigendum-III
416	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 2	The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	The router is going to utilize multiple 400G traffic on coherent optics based WAN links which means that the client interfaces dimensioning must be inline = min 30 to 40 x 25/50G. Hence we request to change the clause as follows: "The router should have option for 6x400G QSFP DD/QSFP DD DWDM ports and 48x10/25/50G SFP56 by upgrading the license."		No change is proposed
417	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 4	The router should support the following functionality from the day one:-	The router should support the following functionality from the day one:-		
418	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 4	a) IPv4 RIB/FIB: 10M/1.5M	a) IPv4 RIB/FIB: 2M/1M		No change is proposed
419	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 4	b) IPv6 RIB/FIB: 6M/750K	b) IPv6 RIB/FIB: 500k/150K		No change is proposed
420	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 4	c) MPLS Labels: 50K	c) MPLS Labels: 16K		No change is proposed
421	B TECHNICAL SPECIFICATION S, CHAPTER-3	26	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 4	d) Label Stack: 8	d) Label Stack: 8		No change is proposed
422	B TECHNICAL SPECIFICATION S, CHAPTER-3	30	7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR), 31 (i)	The system should support REST API for communication with third party tools and applications	The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
423	4.A.12 Qualification Criteria, CHAPTER 4	38	4.A.12.1 Eligibility Criteria Requirements for OEMs, 4	OEM should have ISO/IEC 15408-1:2009 certificate	We would requests you to delete this clause as this clause is mainly for products designed to address IT Security need of an organization like firewall, IPS, DDoS etc.		As per the corrigendum-III
424	4.A.12 Qualification Criteria, CHAPTER 4	38	4.A.12.1, Eligibility Criteria Requirements for OEMs, 3	OEM should be having CMMI Maturity Level certificate	We would requests you to delete this clause as this clause is mainly for software development organizations.		As per the corrigendum-III
425	4.A.12 Qualification Criteria, CHAPTER 4	39	4.A.12.1 Eligibility Criteria Requirements for OEMs, 7	OEM should have Service Centre at min 04 locations in major cities in India.	OEM should have Service/Delivery/Support Centre at min 04 locations in major cities in India.		As per the corrigendum-III

426	4.A.12 Qualification Criteria, CHAPTER 4	51	4.A.41.1 Preference to Make in India, (i)	Only Class-I local suppliers (meeting minimum 50% local content) & Class-II local suppliers (meeting minimum 20% local content) are eligible to participate in this tender.	Nokia is a global leader in IP MPLS, DWDM, GPON, Radio technologies. In India Nokia had been supplying IP MPLS solution to every large service provider (Bharti Airtel, Reliance Jio, Vodafone, BSNL etc) & many large ISPs. We are very keen to participate in this opportunity & would look forward to your kind consideration.		As per the corrigendum-III
427			4.A.12.2, Eligibility Criteria Requirements for Bidders:	Financial Capability: The bidder should have received a minimum cumulative contract of Rs. 30.98 Crs from the operations in the last three financial years plus current year upto the date of opening of tender.		Please explain .	Tender condition is very clear ,No change is proposed
428			4) OTN device (8x100G) with SNMP support (Item no.4 of SOR)	1. The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 8x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP).	1. The OTN device is going to utilize multiple 100G traffic on coherent optics based WAN links (6 x 100G DWDM) which means that the client interfaces dimensioning must be inline = min 10 to 12 x 100G. Hence we request to change the clause as follows: "The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 12 x100G QSFP28 interfaces. The OTN device should support atleast 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP)."		As per the corrigendum-III
429				3. The OTN device hardware should support the following functionality from the day one:-	3. The OTN device hardware should support the following functionality equivalent to T3 router from the day one:-		
				a) IPv4 RIB/FIB: 128K/32K	IPv4 RIB/FIB = 2M/1M		No change is proposed
				b) IPv6 RIB/FIB: 64K/16K	IPv6 RIB/FIB = 500k/150k		No change is proposed
				d) Label Stack: 3	Label Stack = 8		No change is proposed
				e) L2/L3 VPN: 500	L2/L3 VPN = 2k		No change is proposed
				F) RSVP LSP ingress/transit: 2K/1K	RSVP LSP ingress/transit = 15K		No change is proposed
430			6) Tier-4 Routers(4X100G and 24X10G) - (Item no. 6 of SOR)	1.6 The router shall be equipped with 8x10G SFP+ and 4x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics .	1.6 Considering current requirement and future traffic growth, we request to change the clause as follows: "The router shall be equipped with 8x10G SFP+ and 6x40/100G (Uplink) QSFP28 Optical ports. All the optical interfaces shall be support LR,ER and ZR optics ."		No change is proposed
431				5.1 Router shall support non-blocking throughput capacity of 280 Gbps full duplex or higher.	5.1 Router shall support non-blocking throughput capacity of 800 Gbps full duplex or higher.		No change is proposed
432				6.7 Operating temperature: 0°C to 45°C.	6.7 Operating temperature: 0°C to 40°C.		As per the corrigendum-III
433				10.9 The system should support REST API for communication with third party tools and applications	10.9 The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
434				11.8 Router ASIC should be capable of supporting SRv6 natively and inter-working with SR-MPLS in future SRv6-MPLS inter-working in future with software enhancement.	11.8 Router ASIC should be capable of supporting SR MPLS natively		As per the corrigendum-III

435			7) Tier-3 Routers(8X100G) - (Item no. 7 of SOR)	2. The router should have option for 6x400G DWDM QSFP DD ports and 12x10/25/50G SFP56 by upgrading the license/OS/Optics/Hardware. 400G QSFP DD all ports should support ZR & ZR+ 400G optics.	2. The router is going to utilize multiple 400G traffic on coherent optics based WAN links which means that the client interfaces dimensioning must be inline = min 30 to 40 x 25/50G. Hence we request to change the clause as follows: "The router should have option for 6x400G QSFP DD/QSFP DD DWDM ports and 48x10/25/50G SFP56 by upgrading the license."		No change is proposed
436				4. The router should support the following functionality from the day one:-	4. The router should support the following functionality from the day one:-		
				a) IPv4 RIB/FIB: 10M/1.5M	a) IPv4 RIB/FIB: 2M/1M		No change is proposed
				b) IPv6 RIB/FIB: 6M/750K	b) IPv6 RIB/FIB: 500k/150K		No change is proposed
				c) MPLS Labels: 50K	c) MPLS Labels: 16K		No change is proposed
				d) Label Stack: 8	d) Label Stack: 8		No change is proposed
				i) The system should support REST API for communication with third party tools and applications	The system should support REST-API/Netconf/Yang for communication with third party tools and applications		As per the corrigendum-III
437	Clause no. B & Chapter no. 3	Page no. 11	Clause no. B & Chapter no. 3	24 Nos. 1/10G SFP+ , 4x Port 100G QSFP28 port.	24 Nos. 1/10G SFP+ , 2x Port 100G QSFP28 port.	for wider participation	No Change is proposed
438	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	Switch should have 02 power supply in 1+1 in redundant mode. It should support both type (-48v DC & 240v AC supply) of power supply. Any power source (-48v DC / 240v AC supply) can be inserted on the power port without any external adapter.		Please clarify if both PS types (AC and DC) needs to be provided on day-1?	No Change is proposed
439	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Switch should support Dying Gasp for quick troubleshooting during power failures or system shutdowns or should support graceful restart	Dying Gasp is a proprietary feature. Please remove this clause or make it optional	As per the corrigendum-III
440	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support for Automatic Negotiation of link speed and duplex to help minimize the configuration & errors.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
441	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and management.	It shall support centralized VLAN Management through protocol or API/Ansible.	Such protocols are proprietary in nature and does not interop. So please modify clause for wider participation.	As per the corrigendum-III
442	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy, IGMP Querier and MLDv1, MLD Querier.	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy, IGMP Querier and MLD / MLD Querier.	please modify for wider participation.	As per the corrigendum-III
443	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	It shall support Optical Transceiver Digital Diagnostic Monitoring, support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
444	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support configuration rollback to replace current configuration with any saved configuration file			No Change is proposed
445	Clause no. B & Chapter no. 3	Page no. 12	Clause no. B & Chapter no. 3	It shall support Auto sensing speed on 10/100/1000 ports, Auto negotiating half/full duplex on all ports and Auto-MDIX.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
446	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	There shall be Shaping and Scheduling – SP, SPQ + WRR, WRR / WFQ / Weighted Deficit Round Robin (WDRR)	please modify for wider participation.	As per the corrigendum-III

447	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall support IGMP filtering to provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port	It shall support IGMP filtering to limit the number of concurrent multicast streams available per port	please modify for wider participation.	No Change is proposed
448	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall support IMPB, DHCP snooping, IPSG and dynamic ARP inspection	It shall support DHCP snooping, IPSG and dynamic/static ARP inspection	please modify for wider participation.	No Change is proposed
449	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall support Port Mirroring (minimum 4 mirror session) based on port basis and VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected. It should support RSPAN.	It shall support Port Mirroring (minimum 4 mirror session) based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs.	please modify for wider participation.	As per the corrigendum-III
450	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
451	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall support Unidirectional Link Detection (UDLD)	It shall support Unidirectional Link Detection (UDLD) or similar mechanism to detect unidirectional link faults.	please modify for wider participation. UDLD implementations are proprietary in nature and does not interop with other vendor. While there other open mechanism like bridge assurance and BFD that can be used for same purpose in interoperable way.	As per the corrigendum-III
452	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall have Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination	It shall have Layer 3 traceroute to ease troubleshooting by identifying the physical path that a packet takes from source to destination	trace route is a open standards based layer-3 feature. layer-2 trace is not a standard and doesn't not work in multi-oem environment.	No Change is proposed
453	Clause no. B & Chapter no. 3	Page no. 13	Clause no. B & Chapter no. 3	It shall support RMON v1 and v2 standards and 4 RMON groups	It shall support RMON / SNMPv3	please modify for wider participation. RMON is a very old technology.	No Change is proposed
454	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management for better manageability.	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management/API for better manageability.	please modify for wider participation.	No Change is proposed
455	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	-- please remove	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
456	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
457	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
458	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
459	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Should support authentication to allow an IP phone and a PC to authenticate on the same switch port while being placed on the appropriate voice and data VLANs.	-- please remove	As phone connectivity and its authentication is not a use case will request to remove the clause for wider participation.	No Change is proposed
460	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Should support GVRP VLAN Trunking Protocol	Should support GVRP VLAN Trunking Protocol or API/Ansible	please modify for wider participation. GVRP is not generally used.	As per the corrigendum-III

461	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, Private VLAN, GVRP, GARP, IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	It should support Port-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, IP-Subnet Based VLAN.	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
462	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Should support MAC Authentication Bypass (MAB) and WebAuth with downloadable ACLs	Should support MAC based Authentication and downloadable ACLs	please modify for wider participation. web-auth is generally used in wireless network for guest connectivity.	No Change is proposed
463	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It should support flex link.	It should support flex link or backup link	flex link is OEM specific term	As per the corrigendum-III
464	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	-- please remove	please remove clause for wider participation. Rapid spanning tree is commonly supported by multiple OEMs can be considered instead for sub-second convergence.	No Change is proposed
465	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It should support In-Service Software Upgrade (ISSU)	It should support In-Service Software Upgrade (ISSU) for HA with peer	please modify for clarity. Single switch can not be upgraded without downtime.	As per the corrigendum-III
466	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	It shall support access list based on IPv4/v6 address Protocol type IPv6 flow label VLAN-ID MAC-ID DSCP IPv6 traffic class TCP/UDP Port and User-defined packet content	It shall support access list based on IPv4/v6 address, Protocol type, VLAN-ID, MAC, DSCP, IPv6 traffic class, TCP/UDP Port	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
467	Clause no. B & Chapter no. 3	Page no. 14	Clause no. B & Chapter no. 3	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Should have extensive support for IP SLA or TWAMP	please modify for wider participation.	As per the corrigendum-III
468	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	It should support DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	please modify for wider participation.	As per the corrigendum-III
469	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs) or should support TWAMP	please modify for wider participation.	No Change is proposed
470	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731 or should support TWAMP	please modify for wider participation.	No Change is proposed
471	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	It should support L2 Protocol Tunneling for STP, GVRP and LACP	It should support LACP	L2 protocol tunnel for STP and GVRP are not commonly used and may be removed	As per the corrigendum-III
472	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	Should support port and vlan mirroring and jumbo frame 9K.	Should support port / vlan mirroring and jumbo frame 9K.	please modify for wider participation.	No Change is proposed
473	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	vi) Ethernet OAM SNMP alarms.	-- please remove	please remove for wider participation	No Change is proposed
474	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	i) Operating Temperature - min -5 to 50 °C	i) Operating Temperature - min -5 to 40 °C	please modify for wider participation. 0°C is commonly supported across industry.	No Change is proposed
475	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	Switch should have safety compliance of CE, LVD	Switch should have safety compliance of CE / LVD	please modify for wider participation. CE safety compliance is commonly supported across industry.	As per the corrigendum-III

476	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	It shall have comprehensive debugging features required for software & hardware fault diagnosis	please modify for wider participation.	As per the corrigendum-III
477	Clause no. B & Chapter no. 3	Page no. 15	Clause no. B & Chapter no. 3	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	SNMP/monitoring Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	multiple advance mechanism like realtime push telemetry are present for monitoring. So please modify the clause to allow such mechanism instead of SNMP.	No Change is proposed, Bidder can proposed third party software/tool for the same . In that case OEM eligibility for non Hardware/Accessories items will not applicable.
478	Clause no. B & Chapter no. 3		Clause no. B & Chapter no. 3	1) 100G Uplink Switch(4x100G and 24x10G) - (Item no. 1 of SOR)	Switch should be IPv6 logo ready Certified	Restrictive for MII Companies. Should be allowed IPv6 ready from Day 1.	No change is proposed
479							
480	Clause no. B & Chapter no. 3	Page no. 16	Clause no. B & Chapter no. 3	Switch should have 02 power supply in 1+1 in redundant mode. It should support both type (-48v DC & 240v AC supply) of power supply. Any power source (-48v DC / 240v AC supply) can be inserted on the power port without any external adapter.		Please clarify if both PS types (AC and DC) needs to be provided on day-1?	No Change is proposed
481	Clause no. B & Chapter no. 3	Page no. 16	Clause no. B & Chapter no. 3	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Switch should support Dying Gasp for quick troubleshooting during power failures or system shutdowns or should support graceful restart	Dying Gasp is a proprietary feature. Please remove this clause or make it optional	As per the corrigendum-III
482	Clause no. B & Chapter no. 3	Page no. 16	Clause no. B & Chapter no. 3	It shall support for Automatic Negotiation of link speed and duplex to help minimize the configuration & errors.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
483	Clause no. B & Chapter no. 3	Page no. 16	Clause no. B & Chapter no. 3	It shall support centralized VLAN Management. VLANs created on the Core Switches shall be propagated to all the other switches automatically, thus reducing the overhead of creating / modifying / deleting VLANs in all the switches in turn eliminating the configuration errors & troubleshooting. It shall support GVRP / VTP for VLAN pruning and management.	It shall support centralized VLAN Management through protocol or API/Ansible.	Such protocols are proprietary in nature and does not interop. So please modify clause for wider participation.	As per the corrigendum-III
484	Clause no. B & Chapter no. 3	Page no. 16	Clause no. B & Chapter no. 3	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLDv1, MLD Querier.	It shall support IGMP snooping v1, v2 and v3, IGMP Proxy , IGMP Querier and MLD / MLD Querier.	please modify for wider participation.	As per the corrigendum-III
485	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support Optical Transceiver Digital Diagnostic Monitoring and support 802.3ah link layer remote loopback and discovery	It shall support Optical Transceiver Digital Diagnostic Monitoring, support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
486	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support configuration rollback to replace current configuration with any saved configuration file			No Change is proposed
487	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support Auto sensing speed on 10/100/1000 ports, Auto negotiating half/full duplex on all ports and Auto-MDIX.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	As per the corrigendum-III
488	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	There shall be Shaping and Scheduling – SP, WRR, SPQ + WRR, WFQ, Weighted Deficit Round Robin (WDRR)	There shall be Shaping and Scheduling – SP, SPQ + WRR, WRR / WFQ / Weighted Deficit Round Robin (WDRR)	please modify for wider participation.	As per the corrigendum-III
489	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support IGMP filtering to provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port	It shall support IGMP filtering to limit the number of concurrent multicast streams available per port	please modify for wider participation.	No Change is proposed

490	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support IMPB, DHCP snooping, IPSG and dynamic ARP inspection	It shall support DHCP snooping, IPSG and dynamic/static ARP inspection	please modify for wider participation.	No Change is proposed
491	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall support Port Mirroring (minimum 4 mirror session) based on port basis and VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected. It should support RSPAN.	It shall support Port Mirroring (minimum 4 mirror session) based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs.	please modify for wider participation.	As per the corrigendum-III
492	Clause no. B & Chapter no. 3	Page no. 17	Clause no. B & Chapter no. 3	It shall have Time-Domain Reflectometer (TDR) or equivalent technology to diagnose and resolve cabling problems on copper ports.	-- please remove this clause	this is only relevant for 1G copper ports. As the switch is asked with SFP port there is no relevance for this clause. so Please remove this clause.	No Change is proposed
493	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It shall support Unidirectional Link Detection (UDLD)	It shall support Unidirectional Link Detection (UDLD) or similar mechanism to detect unidirectional link faults.	please modify for wider participation. UDLD implementations are proprietary in nature and does not interop with other vendor. While there other open mechanism like bridge assurance and BFD that can be used for same purpose in interoperable way.	As per the corrigendum-III
494	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It shall have Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination	It shall have Layer 3 traceroute to ease troubleshooting by identifying the physical path that a packet takes from source to destination	trace route is a open standards based layer-3 feature. layer-2 trace is not a standard and doesn't not work in multi-oem environment.	No Change is proposed
495	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It shall support RMON v1 and v2 standards and 4 RMON groups	It shall support RMON / SNMPv3	please modify for wider participation. RMON is a very old technology.	No Change is proposed
496	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management for better manageability.	It shall support SNMPv1, SNMPv2c, and SNMPv3 and Telnet interface support to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management and Web Management/API for better manageability.	please modify for wider participation.	No Change is proposed
497	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
498	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	-- please remove	please remove clause for wider participation.	As per the corrigendum-III
499	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery	Loopback Detection (LBD) and Switch should support 802.3ah link layer remote loopback and discovery or TWAMP	please modify for wider participation.	As per the corrigendum-III
500	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Should support authentication to allow an IP phone and a PC to authenticate on the same switch port while being placed on the appropriate voice and data VLANs.	-- please remove	As phone connectivity and its authentication is not a use case will request to remove the clause for wider participation.	No Change is proposed
501	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Should support GVRP VLAN Trunking Protocol	Should support GVRP VLAN Trunking Protocol or API/Ansible	please modify for wider participation. GVRP is not generally used.	As per the corrigendum-III
502	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It should support Port-based VLAN, MAC-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, Private VLAN, GVRP, GARP, IP-Subnet Based VLAN and ISM VLAN (MVR), Guest VLAN	It should support Port-based VLAN, VLAN Trunking, Voice VLAN and Surveillance VLAN, IP-Subnet Based VLAN.	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
503	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	Should support MAC Authentication Bypass (MAB) and WebAuth with downloadable ACLs	Should support MAC based Authentication and downloadable ACLs	please modify for wider participation. web-auth is generally used in wireless network for guest connectivity.	No Change is proposed

504	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It should support flex link.	It should support flex link or backup link	flex link is OEM specific term	As per the corrigendum-III
505	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It should support Ethernet Ring Protection Switching ERPS v1 and v2 for main ring and sub rings: G.8032 ERPS Ring Protection Switching provides loop avoidance with redundancy in Layer-2 Ethernet networks using concept of RPL (Ring Protection Link). The switch completion time (transfer time) for a failure on a ring link shall be less than 50ms.	-- please remove	please remove clause for wider participation. Rapid spanning tree is commonly supported by multiple OEMs can be considered instead for sub-second convergence.	No Change is proposed
506	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It should support In-Service Software Upgrade (ISSU)	It should support In-Service Software Upgrade (ISSU) for HA with peer	please modify for clarity. Single switch can not be upgraded without downtime.	As per the corrigendum-III
507	Clause no. B & Chapter no. 3	Page no. 18	Clause no. B & Chapter no. 3	It shall support access list based on IPv4/v6 address Protocol type IPv6 flow label VLAN-ID MAC-ID DSCP IPv6 traffic class TCP/UDP Port and User-defined packet content	It shall support access list based on IPv4/v6 address, Protocol type, VLAN-ID, MAC, DSCP, IPv6 traffic class, TCP/UDP Port	please modify for wider participation. feature mentioned are most relevant and commonly used.	As per the corrigendum-III
508	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Should have extensive support for IP SLA or TWAMP	please modify for wider participation.	As per the corrigendum-III
509	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	It should support DHCP server screening and client filtering, DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	It should support DHCP Client, DHCP Server and DHCP Relay with option 82,66 and 67.	please modify for wider participation.	As per the corrigendum-III
510	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs)	It should support IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (Support 32 MEPs) or should support TWAMP	please modify for wider participation.	No Change is proposed
511	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731	It should support Ethernet OAM compliant with IEEE 802.3ah/Y.1731 or should support TWAMP	please modify for wider participation.	No Change is proposed
512	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	It should support L2 Protocol Tunneling for STP,GVRP and LACP	It should support LACP	L2 protocol tunnel for STP and GVRP are not commonly used and may be removed	As per the corrigendum-III
513	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	Should support port and vlan mirroring and jumbo frame 9K.	Should support port / vlan mirroring and jumbo frame 9K.	please modify for wider participation.	No Change is proposed
514	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	vi)Ethernet OAM SNMP alarms.	-- please remove	please remove for wider participation	No Change is proposed
515	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	i) Operating Temperature - min -5 to 50 °C	i) Operating Temperature - min -5 to 40 °C	please modify for wider participation. 0°C is commonly supported across industry.	No Change is proposed
516	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	Switch should have safety compliance of CE, LVD	Switch should have safety compliance of CE / LVD	please modify for wider participation. CE safety compliance is commonly supported across industry.	As per the corrigendum-III
517	Clause no. B & Chapter no. 3	Page no. 19	Clause no. B & Chapter no. 3	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	It shall have comprehensive debugging features required for software & hardware fault diagnosis	please modify for wider participation.	As per the corrigendum-III

518	Clause no. B & Chapter no. 3	Page no. 20	Clause no. B & Chapter no. 3	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	SNMP/monitoring Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.	multiple advance mechanism like realtime push telemetry are present for monitoring. So please modify the clause to allow such mechanism instead of SNMP.	No Change is proposed, Bidder can proposed third party software/tool for the same . In that case OEM eligiblity for non Hardware/Accessories items will not applicable.
519				2. Supply of 40G Uplink Switch (2X40Gand 24 X 10G) - (Item no. 2 of SOR)	126 Switch should be IPv6 logo ready Certified	Restrictive for MII Companies. Should be allowed IPv6 ready from Day 1.	No Change is proposed
520	Clause no. 4.A.12.1 & Chapter no. 4A	Page no. 38	Clause no. 4.A.12.1 & Chapter no. 4A	OEM should be ISO 9001, 14001, 27001.	- please remove	not relevant hardware (Switching router) OEMs	Tender condition is very clear , No change is proposed
521	Clause no. 4.A.12.1 & Chapter no. 4A	Page no. 38	Clause no. 4.A.12.1 & Chapter no. 4A	OEM should be having CMMI Maturity Level certificate	- please remove	not relevant hardware (Switching router) OEMs	As per the corrigendum-III
522	Clause no. 4.A.12.1 & Chapter no. 4A	Page no. 38	Clause no. 4.A.12.1 & Chapter no. 4A	OEM should have ISO/IEC 15408-1:2009 certificate	- please remove	not relevant hardware (Switching router) OEMs	As per the corrigendum-III
523	Clause no. 4.A.12.1 & Chapter no. 4A	Page no. 39	Clause no. 4.A.12.1 & Chapter no. 4A	OEM should have Service Centre at min 04 locations in major cities in India.	OEM should have Service Centre / RMA depot at min 04 locations in major cities in India.	network switches/routers will be RMAed instead of serviced.	As per the corrigendum-III
524	Clause no. 4.A.12.1 & Chapter no. 4A	Page no. 39	Clause no. 4.A.12.1 & Chapter no. 4A	The OEM should have proven facilities for Engineering, manufacture, assembly, integration and testing and basic facilities with respect to space, Engineering, Personnel, Test equipment, Manufacture, Training, Repair, Service Center Supports in the country from where the proposed equipment are planned to be supplied. OEM should have training repair and service center facilities in India.	The OEM should have proven facilities for Engineering, and basic facilities with respect to space, Engineering, Personnel, Test equipment, Training, Service Center Supports in the country from where the proposed equipment are planned to be supplied. OEM should have training and service center facilities in India.	many hardware OEMs (switches/routers) have manufacturing outsourced to ODMs. Clause is modified according to accommodate such OEMs.	No Change is proposed
525	4.A.5 - Payment Terms	35	4.A.5.3	5% on FAC OR after completion of 12 month of supply OR additional Performance Bank guarantee @ 5% of issued PO/ LOA value.		As per clause no 4.A.6. Performance Bank Guarantee (Security Deposit), we are providing 3% of issued PO Value as security deposit. We request you to kindly remove the clause of holding 5% for 12 months of supply.	Tender condition is very clear , No change is proposed
526	B 1. - Tech Spec	12	B.1.6	Switch should have 02 power supply in 1+1 in redundant mode. It should support both type (-48v DC & 240v AC supply) of power supply . Any power source (-48v DC / 240v AC supply) can be inserted on the power port without any external adapter.		As per Tech Spec P1 clarify DC & AC Power Supply module distribution in quantity	Tender condition is very clear , No change is proposed
527	B.2- Tech Spec	15	B2.2	2) In heading 40G Uplink Switch(2X40G and 24 X 10G) - (Item no. 2 of SOR) In Technical Specification16 Nos. 1/10G SFP+ , 2 Port 40G QSFP+ port.		P1 clarify exact no of Port detail combination of 24X10G in which 16 no is defined and 8 Nos not defined.	As per the corrigendum-III

528	CHAPTER-2 SCHEDULE OF REQUIREMENT	8	Note XII	Only Class-I & Class-II local suppliers are eligible to participate in this tender. Purchase preference will be given to Class-I local supplier meeting the criteria of minimum 50% Local Content (LC) or as notified in the Notification no. 18-10/2017-IP dated 29.08.2018 issued by Department of Telecommunication (DOT) and Notification No. 33(1)/2017-IPHW dated 14.09.2017 issued by MeitY or latest notification issued till opening of tender.		Only Class-I & Class- II eligible, will restrict the bidders to participate. Kindly allow non class-I & class-II bidders too.This will help multiple Bid to participate.	As per the corrigendum-III
529	CHAPTER-2 SCHEDULE OF REQUIREMENT	9	Note XIII	During Technical evaluation, RailTel may asked of POC for offered equipment. Interoperability test with existing Network will also conduct during POC. POC may be exempted in case Offered Equipment or similar/higher capacity equipment of same OS is running in RailTel Network (In that case bidder/OEM request for exemption may be provided). For exemption of POC, RailTel decision will be final. Bidder should arrange material at CNOC (New Delhi) for POC and POC should be completed within 21 days after intimation to bidder. In case of Bidder failed to complete POC successfully in that case offered equipment will be technical disqualified		Kindly share the PoC BOM.	Tender condition is very clear , No Change is proposed .
530	B TECHNICAL SPECIFICATION S. & CHAPTER-3 TECHNICAL REQUIREMENT S AND SPECIFICATION S	20	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR) SN 1	The OTN device should equipped with 2 x100G and 1x200G (OR 2x100G) DWDM line interfaces including optics of CFP/CFP2/QSFP28/QSFP-DD and 8x100G QSFP28 interfaces . The OTN device should support at least 6x100/200G DWDM interfaces if required by upgrading OS/License/Hardware. OTN device should also support third party optics (MSA compliant SFP).		can bidder proposed 2X 100G & 1X 200G (Or 2X 100G) solution via fan out cable? Please clarify.	As per the corrigendum-III
531	B TECHNICAL SPECIFICATION S. & CHAPTER-3 TECHNICAL REQUIREMENT S AND SPECIFICATION S	20	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR) SN 3 e)	The OTN device hardware should support the following functionality from the day one:- a) IPv4 RIB/FIB 128K/32K b) IPv6 RIB/FIB 64K/16K c) MPLS Labels 16K d) Label Stack 3 e) L2/L3 VPN 500 F) RSVP LSP ingress/transit 2K/1K		We understand these are the functionality of router. Please clarify	Bidder can quote Router with OTN interface functionality OR two Box solution (OTN + MPLS Router) but it should not be more than 2 RU solution and should comply functionality asked against OTN device in Tender.
532	B TECHNICAL SPECIFICATION S. & CHAPTER-3 TECHNICAL REQUIREMENT S AND SPECIFICATION S	21	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR) SN 8	All interfaces shall support services like MPLS LSR (LDP & RSVP),L2VPN and L3VPN . shall also support FRR and 6PPE/6VPE.		We understand these are the functionality of router. Please clarify	Bidder can quote Router with OTN interface functionality OR two Box solution (OTN + MPLS Router) but it should not be more than 2 RU solution and should comply functionality asked against OTN device in Tender.

533	B TECHNICAL SPECIFICATIONS & CHAPTER-3 TECHNICAL REQUIREMENTS AND SPECIFICATIONS	21	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR) SN 10	The OTN device should support filtering based on different parameters like: src ip, dst ip, src port, dst port, protocol etc		We understand these are the functionality of router. Please clarify	Bidder can quote Router with OTN interface functionality OR two Box solution (OTN + MPLS Router) but it should not be more than 2 RU solution and should comply functionality asked against OTN device in Tender.
534	B TECHNICAL SPECIFICATIONS & CHAPTER-3 TECHNICAL REQUIREMENTS AND SPECIFICATIONS	21	4) OTN device (8x100G) with SNMP support - (Item no.4 of SOR) SN 11	The OTN device should support IPFIX, Netflow, Jflow or equivalent if required by upgrading OS/License.		We understand that one of the feature need to support from IPFIX, Netflow, Jflow or equivalent. Please clarify.	As per the corrigendum-III
535	Chapter 3B - Technical Specifications		1, SOR Item 7 (Tier-3 Routers)	The router should equipped with 6x 100G QSFP DD ports (supporting 2 x 100G breakout in all ports) and (8x10G SFP+ ports OR 2x100G QSFP28 ports (supporting 4 x 10G breakout in all QSFP28 ports)) . The router should have support of LR (10KM),SR(100M) ,ER(40KM) and ZR (80KM) optics on all QSFP-DD ports.		Request Railtel to Clarify that Day 1 requirement of the Device Capacity is 6*100G+8*10G=680Gbps or 6*200G+8*10G=1280Gbps.	Tender Condition is very Clease , No Change is proposed
536	Chapter 3		4(g), SOR Item 7 (Tier-3 Routers)	Firewall Filters	Ingress 2K/Egress 8K	In Production Network, More Firewall Filters are required on the Ingress than Egress. Hence, Request Railtel to Modify the requirement as "Ingress 8K/Egress 2K"	As per the corrigendum-III
537	Chapter 3		29(a), SOR Item 7 (Tier-3 Routers)	The device should comply to the following safety standards a) EN 55022 Class A Emissions (Europe)		EN55032 is the new standard for EMC emissions replacing EN55022. Hence request Railtel to allow Either of EN55032/EN55022 standards	As per the corrigendum-III
538	Chapter 3		39(d), SOR Item 7 (Tier-3 Routers)	d) MPLS-LDP interworking with SR-ISIS and SR-OSPF		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	As per the corrigendum-III
539	Chapter 3		39(f), SOR Item 7 (Tier-3 Routers)	f) Shall support SR and MPLS (LDP) Interworking Mapping Server		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	Feature on Roadmap before Final acceptance certificate (FAC) shall also acceptable.
540	Chapter 3		42, SOR Item 7 (Tier-3 Routers)	Telemetry tool for performance monitoring should be provided along with Routers and Tool should also be provided for generation of configuration to multiple routers based on predefined templates . These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.		Since this Tender is for Networking Elements & this clause is related to Performance monitoring & Provisioning Tool, which outside the scope of this particular Tender. Request Railtel to Kindly exempt this clause.	No Change is proposed

541	Chapter 3		1.11, SOR Item 7 (Tier-4 Routers)	1.13 Router shall have IP-MPLS interoperability with routers of other multiple OEMs. The product should be tested at EANTC or any other renowned LAB for INTEROPERABILITY in Multi-OEM FOR IP/MPLS. The product series/family should be deployed at least two major Service provider, Govt, Railways. Customer letter (Govt/PSU/ISP) with satisfactory performance of the offered make with IP/MPLS.		Usually for interop test, every Router variant is not tested. Hence, request Railtel to modify the clause as Router/Router series to be tested for Interoperability Test.	As per the corrigendum-III
542	Chapter 3		6.1, SOR Item 7 (Tier-4 Routers)	Should comply to NEBS Level 3 specifications. / Equivalent TEC QM 333 or latest specification		Since, Tier-4 Routers are compact Form Factor. So, these can not be NEBS level 3 Complaint. Hence, request Railtel to modify the standard to NEBS Compliant.	No Change is proposed
543	Chapter 3		11.4, SOR Item 7 (Tier-4 Routers)	MPLS-LDP interworking with SR-ISIS and SR-OSPF		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	As per the corrigendum-III
544	Chapter 3		11.6, SOR Item 7 (Tier-4 Routers)	Shall support SR and MPLS (LDP) Interworking Mapping Server		This functional requirement can be met by enabling SR & LDP on the same Router. Hence request to make this clause optional.	Feature on Roadmap before Final acceptance certificate (FAC) shall also be acceptable.
545	Chapter 3		12, SOR Item 7 (Tier-4 Routers)	Telemetry tool for performance monitoring should be provided along with Routers and Tool should also be provided for generation of configuration to multiple routers based on predefined templates. These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.		Since this Tender is for Networking Elements & this clause is related to Performance monitoring & Provisioning Tool, which is outside the scope of this particular Tender. Request Railtel to kindly exempt this clause.	No Change is proposed, Bidder can propose third party software/tool for the same. In that case OEM eligibility for non Hardware/Accessories items will not be applicable.
546		3		27.09.2022 upto 15:00 hrs.	Request to give the due date at least 15 days after Prebid clarification published.		Please see corrigendum-III
547	CHAPTER-3 - B	11	2	2 - 24 Nos. 1/10G SFP+ , 4x Port 100G QSFP28 port.	Request to amend as : 24 nos 1/10G SFP+ , 2x100G QSFP28 Ports		No change is proposed
548	CHAPTER-3 - B	14	62	62 - All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Request to amend as : EC61000-4-5:2014/EN61000-4-5:2014 Surge, 2kV L-L, 2 kV L-G, Level 3, Criteria A		As per the corrigendum-III
549	CHAPTER-3 - B	15	120	120- i) Operating Temperature - min -5 to 50 °C	Request to amend as : i) Operating Temperature - min -0 to 45 °C		No change is proposed
550	CHAPTER-3 - B	15	122	122 - Switch should have safety compliance of CE, LVD	Request to amend as : Switch should have safety compliance of CE		As per the corrigendum-III
551	CHAPTER-3 - B - 40G Switch	16	62	62-All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	Request to amend as : EC61000-4-5:2014/EN61000-4-5:2014 Surge, 2kV L-L, 2 kV L-G, Level 3, Criteria A		As per the corrigendum-III
552	CHAPTER-3 - B - 40G Switch	19	120	120- i) Operating Temperature - min -5 to 50 °C	Request to amend as : i) Operating Temperature - min -0 to 45 °C		No change is proposed
553	CHAPTER-3 - B - 40G Switch	19	122	122 - Switch should have safety compliance of CE, LVD	Request to amend as : Switch should have safety compliance of CE		As per the corrigendum-III
554	Technical Capability	40		Similar Work: Projects of Telecom Transmission Network / Data Network / Broadband Network in Government / PSUs / Telecom Service Providers network / ISP Network / Public listed company.	Request consider : consider ICT and other IT Project experiences as well .		No change is proposed
555		12	13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	No	To be removed	As per the corrigendum-III
556		14	62	All Gigabit Ethernet ports (in case available) support IEC standard surge protection (6kV)	NO (As all are SFP Port)	To be removed	As per the corrigendum-III
557		14	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	NO (As all are SFP Port)	To be removed	As per the corrigendum-III

558		14	79	It should support In-Service Software Upgrade (ISSU)	Please ask ISSU/ Upgrade online/ Hot patch	To be changed	As per the corrigendum-III
559		14	91	Switch should support PVST+ to have different stp instance for each vlan.	Please ask PVST only	To be changed	As per the corrigendum-III
560		14	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Please remove	Please remove	As per the corrigendum-III
561		15	118	vii)Dying Gasp Traps or alarms	Please remove	Please remove	As per the corrigendum-III
562		15	122	Switch should have safety compliance of CE, LVD	Please remove LVD	Please remove	As per the corrigendum-III
563		15	124	Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.	Please ask standard CE certificates	To be changed	As per the corrigendum-III
564		15	125	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements	Please ask standard certificates like FCC	To be changed	As per the corrigendum-III
565		15	126	Switch should be IPv6 logo ready Certified	Please remove Certified word. Switch is IPv6 features supported	To be changed	As per the corrigendum-III
566		15	127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Please remove Dying Gasp	To be changed	As per the corrigendum-III
567		15	128	Switch should come with default accessories like Switch 3PIN Power cable, RJ-45 console cable, 2 mounting brackets for 19" rack mounting, Mounting kit, Quick Installation Guide			As per the corrigendum-III
568		15	129	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates . These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.			No change is proposed
569		16	13	Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	NO	To be removed	As per the corrigendum-III
570		18	62	All Gigabit Ethernet ports (in case avilable) support IEC standard surge protection (6kV)	NO (As all are SFP Port)	To be removed	As per the corrigendum-III
571		18	63	Switch should support Surge Protection on power input and on Ethernet ports as per EN standard	NO (As all are SFP Port)	To be removed	As per the corrigendum-III
572		18	64	Switch should support Surge Protection to ± 4 kV (line earth) and ± 2 kW (line-line) on power input	2KV	Please change to 2KV	As per the corrigendum-III
573		18	79	It should support In-Service Software Upgrade (ISSU)	Please ask ISSU/ Upgrade online/ Hot patch	To be changed	As per the corrigendum-III
574		19	91	Switch should support PVST+ to have different stp instance for each vlan.	Please ask PVST only	To be changed	As per the corrigendum-III
575		19	93	Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications or similar technology.	Please remove	Please remove	As per the corrigendum-III

576		19	118	vii)Dying Gasp Traps or alarms	Please remove	Please remove	As per the corrigendum-III
577		19	122	Switch should have safety compliance of CE, LVD	Please remove LVD	To be removed	As per the corrigendum-III
578		19	124	Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.	Please ask standard CE certificates	To be changed	As per the corrigendum-III
579		19	125	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements	Please ask standard certificates like FCC	To be changed	As per the corrigendum-III
580		19	126	Switch should be IPv6 logo ready Certified	Please remove Certified word. Switch is IPv6 features supported	To be changed	As per the corrigendum-III
581		19	127	It shall have comprehensive debugging features required for software & hardware fault diagnosis. Switch should support Dying Gasp for quick trouble shooting during power failures or system shut downs.	Please remove Dying Gasp	To be removed	As per the corrigendum-III
582		20	128	Switch should come with default accessories like Switch 3PIN Power cable, RJ-45 console cable, 2 mounting brackets for 19" rack mounting, Mounting kit, Quick Installation Guide			As per the corrigendum-III
583		20	129	SNMP Tool for performance monitoring should be provided along with Switches and Tool should also be provided for generation of configuration to multiple switches based on predefined templates . These tools should not be any additional cost to RailTel however VMs for same will be provided by RailTel in case required.			No change is proposed