

Annexure A

Sl.No	Description	Qty
1	L3 Core Switch - 19-inch Rack mountable RJ45- 48 ports(copper) of 10GBASE-T and 6 ports of 40G QSFP+ with 2power supply, 5 Years Warranty with advance replacement	1
2	40G QSFP+ SM Transceiver LC	1

Annexure B

Sr. No	Specifications	Compliance Yes / No	Remarks
1	Architecture		
	The switch should have at least 48 fixed 1000 /10000 RJ 45 ports(copper) and 6 x QSFP+ ports.		
	The switch Shall Support RJ45 10GBASE -T		
	The switch shall have 1.4Tbps Gbps Gbps switching capacity		
	The switch shall have switching throughput up to 1607 million pps		
	The switch should have 32K ARP entries		
	The switch should support IPV4 80K IPv4 route and 56K IPv6 route		
	The switch should have Modular operating system with OVSDB to support a database-centric operating system.		
	The switch should have Distributed architecture with separation of data and control planes.		
	The switch should have independent monitoring and restart of individual software modules, and enhanced software process serviceability functions.		
	The switch should have individual software modules to be upgraded for higher availability.		
	The switch should have built-in framework for monitoring, troubleshooting and capacity planning.		
	The switch should support Jumbo frames size of 9K bytes		
	The switch should support internal loopback testing for maintenance purposes and an increase in availability		
	The switch should support Redundant and load-sharing fans, and power supplies		

	The switch should support hot-swappable modules		
	The switch should protect against unknown broadcast, unknown multicast, or unicast storms with user-defined thresholds		
	The switch should support internal Redundant power supplies		
2	Resiliency and high availability		
	The switch should support MLAG		
	The switch should support Separate data and control paths		
	The switch should support VRRP		
	The switch should support Unidirectional Link Detection (UDLD)		
	The switch should support IEEE 802.3ad LACP with support up to 128 trunks and eight links per trunk		
	The switch should support Generic Routing Encapsulation (GRE)		
3	Management		
	The switch should support full REST APIs		
	The switch should have built-in troubleshooting feature		
	The switch should have the capability to enable or disable console port, or reset button interfaces depending on security preferences		
	The switch should support Industry-standard CLI		
	The switch should restricts access to critical configuration commands and support multiple privilege levels with password protection		
	The switch provide ACL based SNMP access and support local and remote syslog capabilities allow logging of all access		
	The switch should Provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions		
	The switch should support sFlow (RFC 3176)		
	The switch should support Remote monitoring (RMON)		
	The switch should support TFTP, and SFTP support		
	The switch should support Debug and sampler utility		
	The switch should support ping and traceroute for both IPv4 and IPv6		
	The switch should support Network Time Protocol (NTP)		
	The switch should support IEEE 802.1AB Link Layer Discovery Protocol (LLDP)		
	The switch should support Dual flash images		
	The switch should support Multiple configuration files		

4	Layer 2 feature		
	The switch should support up to 4,096 port-based or IEEE 802.1Q-based VLANs and supports MAC-based VLANs, protocol-based VLANs, and IP-subnet-based VLANs		
	The switch should support Bridge Protocol Data Unit (BPDU) tunneling		
	The switch should support Port mirroring		
	The switch should support IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)		
	The switch should support Internet Group Management Protocol (IGMP)		
	The switch should support Rapid Per-VLAN spanning tree plus (RPVST+)		
	The switch should support IGMPv1, v2, and v3 and support Any-Source Multicast (ASM)		
	The switch should support congestion actions and support strict priority (SP) queuing and weighted fair queuing		
5	Layer 3 feature		
	The switch should support Address Resolution Protocol (ARP) and supports static ARPs, gratuitous ARP to allow detection of duplicate IP addresses and proxy ARP		
	The switch should support UDP helper		
	The switch should support Dynamic Host Configuration Protocol (DHCP) and support DHCP Relay		
	The switch should support Domain Name System (DNS)		
	The switch should support Multicast VLAN		
	The switch should support Protocol Independent Multicast (PIM) and supports Sparse Mode (SM)		
	The switch should support Static, Open shortest path first (OSPF), Border Gateway Protocol IPv4 routing		
	The switch should support directed broadcasts, customization of TCP parameters, support of ICMP error packets and extensive display capabilities		
	The switch should support Static IPv6 routing, OSPFv3 and BGP-4		
	The switch should support Dual IP stack		
	The switch should support Equal-Cost Multipath (ECMP)		
6	Security		
	The switch should support ACLs for both IPv4 and IPv6 based on a Layer 2 header or a Layer 3 protocol header		
	The switch should support Remote Authentication Dial-In User Service (RADIUS)		
	The switch should support Terminal Access Controller Access-Control System (TACACS+)		

	The switch should support Secure shell (SSHv2)		
7	Environmental Features		
	Shall provide support for RoHS and WEEE regulations		
	Operating temperature of 0°C to 40°C		
	EN 60950 IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013 UL 60950-1, CSA 22.2 No 60950-1 EN 60825-1:2007 / IEC 60825-1:2007 Class 1 EN 55032:2015 / CISPR 32, Class A VCCI Class A CNS 13438 AS/NZS - CISPR 32 2015, Class A ICES-003 Issue 5 FCC CFR 47 Part 15:2010, Class A EN 50581:2012 (RoHS)		
8	Warranty and Support		
	The below Warranty shall be offered directly from the switch OEM.		
	5 Year Warranty with advance replacement		
9	MAF		
	Vendor should provide MAF letter from OEM		
10	OEM should be Positioned in Gartner leader quadrant for wired /wireless		