INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION

RFX No 6100002221

Technical Specification for Extreme Network Switches

Network Switches Specifications

S.No.	Part No.	Description	Quantity
1	7520-48XT-6C-AC-F	Extreme 7520-48XT Switch - Ships with two AC front-to-back airflow power supplies, six front-to-back airflow fans, one 4-post rack mount kit. Supports 48 x 1G/10G copper ports and 6 x 40G/100G fiber ports with 1 year NBD AHR (Advanced Hardware Replacement)	3

Compliance for Network Switches:

Network Switch Specifications		Technical Compliance (Yes/No)	Additional Information (if any)
S.No.	**Detailed Technical Specifications**		
1	The proposed switch can be chassis based/1U Rack mountable and support non-blocking architecture.		
2	The Switch shall have 48 x 1/10GbE 10GBaseT Ports and minimum 6 x 40/100GbE QSFP28 ports out of which 2 required stacking support for creating HA in future.		
3	The switch should have Dual hot-swappable power supplies and at least 4 fan modules or more.		

4	Switch should have wireline rate at least 2.16 Tbps switching fabric performance and 1000 MPPS forwarding rate or better		
5	Operating temperature of 0°C to 40°C		
6	The switch should support minimum 290K Mac address and 100K IP Multicast routes/entries.		
7	The switch should support IEEE 802.1s Multiple Spanning Tree, 802.3ad (LACP) for link aggregation, Multi-Chassis LAG with no blocked links.		
8	The switch should support VLAN and tagging and support the IEEE 802.1Q standard and 4000 VLANs simultaneously		
9	The Multi-Chassis LAG must support both L2 switching and L3 routing with redundant nodes		
10	The switch should support 9K Jumbo frames, dual-stack IPv4 and IPv6 interfaces, VRRP for IPv4 and IPv6, 6in4 tunnelling.		
11	The switch should support a minimum of 250 VRFs and 100K ARP entries.		
12	The switch should support minimum of 250K IPv4 and 130K IPv6 routes.		
13	The switch should support RA-Guard, DHCP-Guard and ND Inspection for IPv6 First Hop Security		
14	The switch should support ECMP and configurable route preference for ECMP path selection.		
15	The switch should support RIPv2, OSPFv2 , BGP4, PIM for IPv4 and IPv6 routing, Policy based routing, unicast reverse path forwarding (uRPF), VXLAN, ISIS		
16	The switch should support Integrated Application Hosting that enables 3rd-party applications without impacting switch performance		
17	The switch should support route redistribution and ability to specify routes for redistribution using route-maps		

18	The switch should support IGMP v1/v2/v3 along with snooping for IPv4 Multicast Groups, MLD along with snooping for IPv6 Multicast Groups, ACLs, 802.1AB Link Layer Discovery Protocol (LLDP), flow based mirroring, RMON.		
19	The switch must support both L2 and L3 virtualization, and support VXLAN / Tunnel or equivalent for creating software-defined virtualized campus networking solutions.		
20	The switch should support working over rings, mesh, partial mesh networks and any combination to provide network operators the freedom to build services wherever and whenever needed on demand for a loop free STP free architecture.		
21	The Campus network solution must support transportation of L2 traffic over public and private networks. Software-defined virtualized networking solution capabilities must be standards based to extend fabric services to the network edge.		
22	The switch should support Traffic prioritization to enable real-time traffic classification into eight priority levels that will mapped to eight queues		
23	Should support integrated security features like DHCP snooping with option-82, Dynamic Arp Inspection, IP Source guard		
24	Should support AAA. It must support LDAP/ RADIUS / TACACS+ protocol as well.		
25	The Switch should secure management interfaces such as SNMPv3, Telnet, SSH, SSL, and Web		
26	The switch should support both L2 and L3 fabric capabilities, with future scalability achieved by upgrading the Fabric Orchestrator license only, allowing for a fully scaled fabric architecture in the campus without the need to replace any hardware.		
27	The switch must support Layer 2 and Layer 3 Automation based Fabric capabilities within the same hardware. Must support the ability to automatically connect to the fabric backbone.		

28	Solution should ensure fabric and non-fabric infra should integrate in the same network.		
29	Switching System should be quoted with TAC support 24x7 and 8x5x NBD support for 1 year and must submit the support contract copy from OEM with the customer.		
30	Switch Should be stack and MLAG with existing Extreme 7520-48XT series switch		