


Technical Specifications for Advance Layer 3 Campus Aggregation Switch


Sr. No	Features / Descriptions
1	Advance Layer 3 Campus Aggregation switch with dual or more power supplies & cooling mechanism (fan trays) etc.
2	1G/10G SFP+ (Fiber ports): Minimum 24 Ports (Should be populated with LR - 10KM Single Mode transceivers).
3	1G/10G Copper ports (RJ45): Minimum 24 Ports.
4	40G QSFP+ ports: Minimum 4 ports (Two should be populated with 2 KM Single mode transceivers).
5	Expansion Slots - Minimum 4 Slots.
6	Minimum 2 expansion slots should be available after meeting above port configuration for Future use.
7	Must support 100G QSFP28 ports from day of supply / installation.
8	Forwarding performance - 1429 Mpps / above.
9	Switching Capacity - Minimum 2.5 Tbps.
10	Mac address table size - Minimum 288,000 entries.
11	Routing table size - Minimum 120,000 (IPv4) and Minimum 60,000 (IPv6).
12	10 Gbps latency < 1 microsecond (64-byte packet).
13	Vlans: must support Minimum 4000 VLANS or Above.
14	Jumbo Frames: Minimum 10,000 bytes / above.
15	Must provide one Out of Band Rj45 ethernet interface for management.
16	Support stacking over 10G/40G/100G uplinks with Minimum 9 switches.
17	Should provide low latency nonblocking, lossless Clos architecture with VOQs and large buffers.
18	Must Support for SDN / Openflow 1.3 or latest.
19	Must Support for cut-through and nonblocking architecture.


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20	Must Support for TRILL, TRILL ECMP up to 8 paths.
21	Must Support for Shortest Path Bridging (IEEE 802.1aq) with ECMP up to 8 paths.
22	Must Support for EVB/VEPA.
23	Must support for IEEE 802.1Qbb Priority Flow Control (PFC) and Data Center Bridging Exchange (DCBX) for converged applications.
24	Must Compliance / Support to IEEE 802.1Qaz Enhanced Transmission Selection (ETS).
25	Must Compliance / Support to Explicit Congestion Notification (ECN) for converged FCoE, iSCSI and RoCE environments.
26	Must Compliance / Support for FCoE.
27	Must Provide VxLAN layer 2 and layer 3 gateway support for up to 4000 tunnels.
28	Must Provide Support for OVSDB and ML2 support for dynamic VxLAN configuration.
29	Must Provide Support for EVPN.
30	Must Provide Support for NTP/SNTP/PTP (IEEE 1588v2).
31	Must Provide Support for advance QoS, SP, WRR, Traffic Policing.
32	Must Provide Support for BFD.
33	Must Provide Support for VRRP and VRRP Extended.
34	Must Provide Support for Radius/TACACS+
35	Must Provide Support for LLDP.
36	Must Provide Support for sFlow/Netflow/Jflow.
37	Must Provide Support for DLDP.
38	Must Provide Support for UDLD / DLDP or equivalent.
39	Must Provide Support for SNMPv1/2/3.
40	Must Provide Support for IEEE 802.3x.
41	Must Provide Support for IEEE 802.1ad Q-in-Q.


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42	Must Provide Support for STP/RSTP/MSTP.
43	Must Provide Support for Static IP Routing + RIP + OSPF + BGP + IS-IS.
44	Must Provide Support for IPv6, RIPng, OSPFv3, BGP+, IS-IS for IPv6.
45	Must Provide Support for Graceful restart for OSPF, BGP.
46	Must Provide Support for access control lists (ACL).
47	Must Provide Support for Port Security.
48	Must Provide Support for Port mirroring.
49	Must Provide Support for Port Isolation.
50	Minimum 1-year warranty of HW/SW including power supplies and Transceivers.

Note:

- All the requested features must be available from day of procurement/ Installation and should be enabled/active in full capacity.
- Quoted brand must be in Leaders/Challenger quadrant of Gartner's Unified wired & Wireless LAN access for past 3 years at least.
- Please provide references to public documents (internal documents shall not be accepted) in your compliance document.
- Only genuine OEM transceivers/SFPs of the similar brand as of switch are acceptable, 3rd party transceivers shall not be accepted.
- Serial numbers of SFP must be verifiable on OEM Portal at the time of delivery.
- Full compliance is required, any inferior feature or product shall not be accepted.
- Bidder must submit Hardware/ Software Features compliance Performa with Technical Bid.


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