

DEPARTMENT OF COMPUTER SCIENCE & ENGG

Sub: Tender Inviting Quotations for 10G Software Defined Networking (SDN) Compliant Layer 2 & Layer 3 Switch.

Due Date: Sep 18th 12:00 Noon

Qty: Approximately one to two Nos.

Sealed Quotations are invited from reputed manufacturer/Bidder for purchase of 10G L2 & L3 Switch with Redundant High Availability Mode (or chassis based solution with redundant management module) with support for Software Defined Networking (SDN) with the following capabilities in the Department. There will be a two bid system-a technical bid & a financial bid. The technical bid should also contain post warranty AMC terms. Technical bid should not contain any commercial information, else will be rejected. The financial bid will be opened only if technical bid functionally meet the following tender specification. Before submitting the tender, read the tender terms & conditions carefully.

1. Minimum 8 10Gbase-T ports & 8 10G SFP+ ports and 8 of 1G Base T ports in switch. Two 10G LR SFP, 6 10G SR SFP.
2. Option for 8 additional 10G SFP+ ports.
3. Option for 7M Direct attach cables.
4. Dual internal hot-swappable power supplies for high availability and power efficiency.
5. Switching backplane capacity of minimum 480Gbps (full-duplex) and 390Mpps. MAC addresses: 64 K; IPv4 routes: 5 K, IPV6 : 4 K.
6. Full wire-speed performance utilizing a non-blocking architecture to easily handle burst traffic loads.
7. Support for OSPF, RIP, Open flow spec1.0-1.3. Full interoperability in multivendor networks, should offer the latest open-standard protocols and ability to interface with Cisco VRRP.
8. Support link aggregation and Multi-chassis Link Aggregation (MLAG).

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| Layer 2 | Link aggregation: 8 links per group Multi chassis Lag |
| | VLANs: 2000 , 802.1Q |
| | Line-rate Layer 2 switching: all protocols, including IPv4 and IPv6 |
| | Should be able to Support jumbo frames for high-end server connectivity. |
| | 802.1ab(LLDP) , LLDP MED, 802.3az |
| Layer 3 | Line-rate Layer 3 routing: IPv4 and IPv6 |
| | Supports Static Route ,RIPV1,RIPV2, OSPF v2, OSPFV3, VRRP, ECMP or equivalent |

9. Full support for Software Defined Networking for scalability of SDN for Cloud computing with continued committed upgrades for minimum five years from installation.
10. Advanced classifier-based QoS: classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information.

11. Management support with 1 RJ45 console/management port with RS232 Signaling, USB Port, SNMP v1/2/3 and TFTP. Remote intelligent mirroring: mirrors selected ingress/egress traffic based on ACL, port, MAC address, or VLAN RMON, and sFlow v5.

12. Security

- Access control lists (ACLs): provide filtering based on the IP field, source/destination IP address/subnet, and source destination TCP/UDP port number on a per-VLAN or per-port basis
- Multiple user authentication methods
 - IEEE 802.1X users per port
 - MAC-based authentication
 - Concurrent IEEE 802.1X and MAC authentication schemes per port with Radius

13. Support: Electronic and telephone support 24x7

14. Warranty with continued committed upgrades for 5 years from date of installation.

15. Safety certifications

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| Safety | UL/CSA 60950-1, EN 60950-1, IEC-60950 |
| Emissions | EN 55022: 2006+A1:2007 (CISPR 22: 2006), Class A , FCC |
| Immunity | EN 300 , EN 55024 , EN 61000 |

Terms & Conditions:

1. Separate Technical and commercial bids are required to be submitted in separate sealed envelope, otherwise the quotation will be rejected.
2. If the quote is submitted by the representative of Principals/OEM, a Valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed of a latest date in original along with the technical bid (Specific to this tender). Either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid for the same tender. Else the bid will be rejected.
3. Validity of the quotation should be at least 90 days from the date of submission.
4. Sealed quotations must be marked "Dept. of CS&E", and should reach the Room No.437, 3rd Floor, Bharti Building, IIT, Hauz Khas, New Delhi-110 016" latest by 18th Sep 2014 by 12noon.
5. Quotation must indicate a delivery schedule, which in no case should exceed 4 weeks from the date of placement of order.
6. Quotation must include the applicable taxes and duties, if any.
7. Payment will be made after satisfactory installation as per IIT norms.
8. Only INR quotes will be accepted. Dollar quotes will be rejected. (No CDEC will be issued by the Institute against INR Quote).
9. Compliance Chart should be clearly attached along with technical bid and must match with the technical data sheet.
10. Technical data sheet of the quoted model must be enclosed.
(Note: The offered compliance chart must match with the Technical Datasheet)

11. OEM and bidder must be ISO Certified. Certificate for the same must be attached with Technical Bid.
12. No Queries regarding change in specifications will be entertained.
13. Institute reserve the right to accept or reject any or all quotation without assigning a reason thereof.
14. The delivery and installation of the machines is to be done at Dept. of CS&E, IIT Delhi.
15. The vendor has to deposit 5% performance Bank Guarantee for the warranty period (i.e. 60 months).

(Prof. Huzur Saran)