

**DR. A. P. J. ABDUL KALAM COMPUTER CENTRE  
PANJAB UNIVERSITY, CHANDIGARH - 160014.**

**Website: <http://cc.puchd.ac.in>**

Prof. R. K. Singla

No. \_\_\_\_\_

Director

Phone 2534077, 4073

Email: [directorcc@pu.ac.in](mailto:directorcc@pu.ac.in)

Dated \_\_\_\_\_/2016

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Dear Sir,

Kindly quote your rates for the Items as per specifications enclosed in Annexure-I, to be purchased by the Computer Centre, Panjab University, Chandigarh.

Three cover quotation in sealed envelope as mentioned below (mentioning clearly the terms and conditions of payment, rate of Sales Tax applicable etc. and other terms) may please be addressed to **The Director, Dr. A. P. J. Abdul Kalam Computer Centre, Panjab University, Chandigarh 160014** which must reach the office **by 04:00 PM, November 3, 2016.**

It is proposed to have a three cover system for this Quotation.

1. Technical Proposal is directed to be kept in a single sealed cover super-scribed with the words "Technical Proposal for Layer-2 PoE Switches".
2. Commercial Proposal is directed to be kept in a single sealed cover super-scribed with the words "Commercial Proposal for Layer-2 PoE Switches".
3. Both the above sealed covers are directed to be kept in a single cover super-scribed with the words "Proposal for Layer-2 PoE Switches due at 04:00 PM, November 3, 2016 (Not to be opened before time)".

**Terms and conditions:**

1. The delivery will be FOR Computer Centre, P.U. Chandigarh.
2. No advance payment will be made.
3. The Quotation should be submitted along with refundable Earnest Money of Rs. 10,000/- in the form of Demand draft in favor of **The Registrar, PU, Chandigarh**. Quotations not accompanied by Earnest Money or incomplete in any respect will be rejected outright.
4. Please attach the authorization certificate from OEM
5. In case the order is not executed within the stipulated period, PU will be at liberty to make purchases through other sources, and to forfeit the earnest money of the Supplier.
6. Full and final payment will be made on the receipt of the material and satisfactory installation.
7. P.U. does not issue C or D form.

Thanking you,

Yours faithfully

Director

**Layer 2 Enterprise Ethernet Switch** (Makes: Cisco, Juniper, Alcatel, Avaya, Extreme, HP, Brocade or other makes of comparative workmanship and quality)

\* Please quote enterprise products only

<b>24-Ports fully managed Layer 2 PoE Switch</b>	Qty
Generic Requirements	6
24 Nos. Ethernet 10/100/1000 ports with IEEE 802.3af and IEEE 802.3at	
Configurable per-port PoE priority and max power for power allocation with dynamic PoE allocation	
2 x 1G/10G Ethernet ports with open SFP slots (Additional to 24 ports mentioned above)	
1 RJ-45(Serial RS-232C) or USB micro-B console port	
Switching fabric capacity :88 Gbps or above for providing non-blocking performance on all ports	
Packet rate 65 Mpps or above	
Provide Gigabit (1000 Mb) Latency of <4 μs or below	
IEEE 802.1Q VLAN tagging	
Support for optional Internal/External redundant AC Power Supplies	
Allows administrators to remotely monitor ports	
Provide support for active 255 VLANs or above and 4,000 VLAN IDs simultaneously	
Should Support 8k to 32k MAC addresses	
Support GARP VLAN Registration protocol or equivalent feature to allow automatic assignment of VLANs	
Jumbo frames up to 9216 bytes or more to improve the performance of large data transfer	
Spanning Tree Protocols as per IEEE 802.1D	
UDLD and Aggressive UDLD allow unidirectional links or equivalent feature	
Should support LDAP or equivalent feature and Private VLAN ( PVLAN)	
Voice VLAN simplifies telephony installations	
Multiple Spanning Tree Protocol as per IEEE 802.1s	
RSTP as per IEEE 802.1w and PVST or PVST+ or Equivalent	
Should Support Q-In-Q Tagging or Equivalent	
Self-learning of Unicast & Multicast MAC addresses and associated VLANs	
Link Aggregation Control Protocol (LACP) or equivalent feature i.e. Port Aggregation Protocol (PagP) as per IEEE 802.3ad up to eight ports per group	
Classification and scheduling as per IEEE 802.1P on all the ports	
Diffserv as per RFC 2474/RFC 2475 Eight hardware queue per port	
QoS configuration on per switch port basis	
Support MAC address based filters /access control lists(ACLs) on all switch ports	
AAA or equivalent feature , RADIUS and TACACS+ for access restriction and authentication	
Secure shell (SSH) protocol, HTTPS ,Telnet	
Multicast Listener discovery (MLD) snooping or equivalent , ARP spoofing, DHCP Snooping , DoS protection etc	
Media access control (MAC) authentication to provide simple authentication based on a user's MAC address	
IEEE 802.1AB Link Layer Discovery Protocol (LLDP) or CDP and LLDP-Med (Media Endpoint Discovery) with VoIP Integration or Equivalent feature.	
SNMP manageable with support for SNMP Version 1,2 and 3 and NTP	
RoHS Compliant	
Should support IPv6	
Should support Static routing or default gateway	
Warranty: 3 Years	