JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA-533003, Andhra Pradesh (India)
Email: registrar@jntuk.edu.in, rao703@yahoo.com

SHORT TERM TENDER NOTICE

Lr.No. JNTUK/ JNTUK-DMC/ L3Switch /2017-18 **Date: 10-11-2017**

Sealed Quotations are invited from the Dealers / Reputed firms for purchase **Layer 3(L3) switch with 1Gbps interface**. The sealed tender should reach undersigned on or before **02.00 P.M. on 22/11/2017** along with the specified EMD.

TENDER SCHEDULE AND SPECIFICATIONS

- Please quote your lowest rate for **Layer 3 switch with 1Gbps interface** for the given specifications. All quotations must contain complete technical details of the product.
- The quotation should reach Registrar's office on or before **22/11/2017 by 02:00 P.M**. The sealed envelope must be inscribed with **"Tender No.(Lr.No. JNTUK/ JNTUK-DMC/ L3Switch /2017-18)", "Date of opening:22-11-2017", .** The sealed covers should be sent by the Registered Post to "**Registrar", JNTUK, Kakinada, A.P. -533003** (or) to be dropped in the sealed box provided in the office of the Registrar-JNTUK. The tender will be opened on **22/11/2017 at 03:30 P.M.** by the undersigned/his nominee in the presence of the committee members and available tenderers' or their representatives.
- **Tender/Bid Participation Fees:** Those who downloaded tender schedule from the JNTUK Website(www.jntuk.edu.in) should submit a separate DD for ₹.1000/- along with the quotation. Demand Draft should be drawn in favour of Registrar , JNTUK, Kakinada, payable at Kakinada. Tenderers who have paid tender participation fees are only eligible to Participate in the tender.
- **E.M.D:** The tender documents should be submitted along with earnest money deposit Rs.2000/- in the form of Demand Draft in favor of **Registrar, JNTUK, Kakinada payable at Kakinada.** The Demand Draft pertaining to E.M.D. of unsuccessful party will be returned.
- **PRICES:** The price should be quoted in **Indian Rupees only** and F.O.R. destination inclusive of taxes, packing & forwarding charges, freight and delivery chargers.

1. **PAYMENT:** 100% payment will be made within a reasonable time only after the receipt of all items in good condition and installation as per given specifications and after testing for satisfactory working and on receipt of the company's invoice with all Supporting vouchers such as copy of A.P. Sales Tax or GST / VAT Registration certificate etc. **No advance will be paid in any case either in part or in full.**

- **Warranty/Guaranty:** Warranty/Guaranty period should be mentioned by the tenderer.
- **DELIVERY:** The period of delivery at destination from date of placing orders is One Week.
- **VALIDITY**: The quotations should be valid for at **least 30 days**.
- **SPECIFICATIONS:** Full specifications along with the description and make should be mentioned in the Tender Document.
- The Institution reserves the right to cancel the tender without assigning any reason.Since the University is Government institution whatever conditions are applicable to any Government institute shall be applicable even if not specified.
- Any tender that is received after due date will not be accepted. The university is not responsible for any postal delay. Either Colour Letter head or white paper with round seal and signature is compulsory while quoting the tender price.
- Any specific queries, communications, and references should be made only to, **The Registrar, JNTUK, Kakinada.**

Registrar
JNTUK

Open Competitive Bid (OCB)

For

Supply and Installation of L3 –Switch at

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Proprietary & Confidential

Section A

Tender Call Notice.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA-533003, Andhra Pradesh (India)

Tender Call
for Supply and Installation of L3 –Switch at JNTUK , Kakinada.

Time schedule of various tender related events.

Bid calling date	**10/11/2017**
Bid closing date/time	**22/11/2017**, 02:00 PM
Bid opening date/time	**22/11/2017**, 03:30 PM
Bid Participation Fee	**Rs.1000/-**
EMD	**Rs. 2000/-**
JNTUK Contact person	Registrar, JNTUK
JNTUK Reference No.	**Lr.No. JNTUK/ JNTUK-DMC/ L3Switch /2017-18** Dated : 10-11-2017

S.No	Layer 3 Switch-Specifications
1	**Product details- Please specify**
1.1	The proposed switches should be Enterprise grade products
1.2	Make, Model No with part no.
1.3	Proposed switch should be NDPP/NIAP certified from Day 1
2	**Architecture**
2.1	Switch should offer **Wire-Speed Non-Blocking Switching** and Routing Performance at Layer 2 and Layer 3.
2.2	The Core Switches should provide 1GbE, 10GbE Ethernet Interfaces.
2.3	The Core Switches (for future purpose) should be SDN ready with support of Open flow v1.3
2.4	Auto MDIX and Half/Full duplex on copper ports
2.5	Switch should have 24 or more 10/100/1000 RJ45 ports.
2.6	The switch should support minimum of 12 * 1 GBPS SFP ports for unlinking, Future upgradable to 10G
2.7	Should have Flash ROM of 2GB or higher. Please specify
2.8	Should have DRAM of 2GB or higher. Please specify
2.9	Should be loaded with Redundant Internal Hot Swappable Power Supply from Day 1
3	**Performance**
3.1	Switching Bandwidth: min 288 Gbps or higher. Please specify.
3.2	Switching Bandwidth: Should provide wire-speed switching at min 200 Mbps or more
3.3	Should support IPv4 & IPv6 switching and routing.
3.4	The switch should support min 16,000 or more routes in hardware.
3.5	Should support following 1G,10G * 1G - 1000BaseSX, LX, LHA, BXD *10G - 10BaseSR.LR, ER, ZR, LRM
3.6	The switch should have 4MB of packet buffer size
3.7	The switch should have hardware support for 802.1AE MACsec and 802.3az - EEE
4	**Layer 2 features**
4.1	Should support 4096 VLANs.
4.2	Should support 32K or more MAC addresses.
4.3	Should support IEEE standards such as IEEE 802.3, IEEE802.3u, IEEE 802.3z, 802.3ab,IEEE 802.3ae,802.3af, 802.3x, 802.1Q, 802.1D, 802.1AB, 802.1ad etc. Please provide details.
4.4	Shall support 802.1s Multiple Spanning Tree, 802.1w Rapid Spanning Tree, Per-VLAN Spanning Tree(PVST/PVRST)
4.5	Should support Private VLAN
4.6	Should support GVRP
4.7	Should support Per-VLAN Spanning Tree (PVST/PVST+/PVRST)
4.8	Should support Uni-Directional Link Detection(UDLD) or equivalent
4.9	Should support Port mirroring
4.10	Shall support IP multicast snooping IGMP v1,v2,v3 ,
4.11	Should support MLD snooping v1/v2
4.12	Should have Multicast forwarding, Protocol independent Multicast PIM- SM,DM & SSM for IPv4 and IPv6 multicast traffic
4.13	Port mirroring based on ACL, VLAN
4.14	Should have Link Layer Discovery Protocol (LLDP)
4.15	Jumbo Frames (up to 9216 bytes)
5	**Layer 3 features to be supported from Day 1**
5.1	Should support Static IP routing, RIP v1/v2, RIP, OSPFv2, OSPFv3, BGP4, BGP4+, VRRP protocols.

5.2	Should support Policy Based Routing (PBR) in hardware.
5.3	Should support GRE tunneling & IPv6 over IPv4 tunnels.
5.4	Should support VRF instances
6	**Stacking Functionality**
6.1	Should support resilient fail safe stacking up to 4 switches in a stack with a minimum stacking bandwidth of 100 Gbps per switch, In future
6.2	Should support Hitless stacking from a layer 2 perspective
7	**Security**
7.1	Should support multiple level of privileges and authentication for secured user access to switch management/monitoring
7.2	Switch should support RADIUS and TACACS/TACACS+ and username/password for Authentication, Authorization and Accounting (AAA)
7.3	Should support secure communications to the management interface and system through Secure Shell(SSHv2), Secure copy and SNMP V3
7.4	Shall support Access control lists (ACLs) providing 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.
7.5	Should support Denial Of Service (DOS) protection through monitoring, throttling, and locking out of ICMP and TCP SYN traffic both to the management address of the switch and for transit traffic.
7.6	Should support protection against man in the middle attacks using IP Source Guard, DHCP snooping and Dynamic ARP Inspection.
7.7	Should support broadcast, unicast and multicast storm control occurring on physical ports.
7.8	Should have 802.1x authentication and dynamic VLAN assignment
7.9	Should support min 5000 ACL's/ACE's in hardware
8	**Manageability**
8.1	Integrated Standard based Command Line Interface (CLI), Telnet, TFTP, HTTP access to switch management/monitoring
8.2	Should support Net Flow or sFlow
8.3	Support SNMP v1, v2, v3 for network monitoring and management
8.4	Should support Network Timing Protocol(NTP) for time synchronization
8.5	Should support IPv6 management features like Link-Local IPv6 Address, IPv6 management ACLs, IPv6 copy, IPv6 ncopy, IPv6 debug, IPv6 ping, IPv6 traceroute, IPv6 DNS server name resolution, IPv6 HTTP/HTTPS, IPv6 Syslog, IPv6 RADIUS, IPv6 SCP, IPv6 SSH, IPv6 SNMP & IPv6 SNMP Traps, IPv6 SNTP, IPv6 TACACS/TACACS+, IPv6 Telnet and IPv6 TFTP.
9	**Warranty**
9.1	Proposed Core switches should be provided with 3 years warranty which includes RMA support, software updates/upgrades and access to TAC.

L3- Switch

Specifications

Statement of Important Limits/values Related to Bid

Item	Description
Bid Participation Fees	**Rs. 1000/-**
Earnest Money Deposit (EMD)	**Rs. 2000/-**
Bid Validity Period	**60 days from the date of opening of bid**
EMD validity Period	**45 days beyond bid validity period**
Warranty & Support Period	**Active Components - 3 Years** **(Bidder/Tenderer should have authorization letter from the company)**
Period for signing the Order Acceptance	**Within 7 days from date of receipt of notification of award**
Payment terms	
On delivery	**70% of the Product Value**
On Installation & Acceptance	**30% of Product Value & 100% of Installation Value**
Conditional bids	**Not acceptable and liable for rejection**
Options for the required equipment	**If the bidder wants to give option, he may submit it as separate bids along with separate EMD. This will be treated as separate bid for evaluation.**

PRICE –BID

(Model)

Sl. No.	Make and Part Number	Product Description	UoM	Qty	Unit Price	Total Price
1	Switch	Make and Model . With Main Specifications	Nos.			
2		Installation Charges (if any)	Lumsum			
					Sub Total	
					Taxes	
					Grand Total	
					(Grand Total In words)	
Warranty & Support (In Years)						