टेलीग्राम-मेन्लियोबॉटनी

दूरभाष 2740008,2740011

फैक्स ९१-91-522-2740485,2740098

बी सा पु सं /III/भंडार एवं क्रय/C-986

53, विश्व विद्यालय मार्ग

लखनऊ - 226007

Date: 17.09.2014

Convener, Website Committee
BSIP, Lucknow

Upgradation /improvement of Wireless LAN connectivity in the institute (List Attached)

Subject: --

Dear Sirs,

This Institute intend to purchase item mentioned above. Sealed quotations are invited so as to reach this office on or before 5:00 P.M. on 30.09.2014 duly superscribed by "Upgradation /improvement of Wireless LAN connectivity in the institute" due to open in presence of vendors at a later date to be notified.

While submitting quotation please note that:

1. The material may either of indigenous manufacturer or of foreign make, available from ready stock. Any offer to supply on forward Delivery Basis under suppliers own quota license will also be considered.
2. The price quoted should be F.O.R. Destination.
3. Your rates should include packing, insurance and forwarding charges.
4. The rates of Sales Tax should be clearly indicated wherever chargeable. The tendered should also indicate Central/Sales Tax Registration Number and date in this quotation.
5. Specific mention should be made whether the offer is for supplies available ex-stock. In case the officer is on Forward Delivery basis, firm delivery period must be indicated.
6. The cover should be sealed and superscribed "Quotation for "Upgradation /improvement of Wireless LAN connectivity in the institute" must be written on envelope in the name of "Director, Birbal Sahni Institute of Palaeobotany, Lucknow. The quotations not complying the procedure will be rejected.
7. Payments will be made by crossed cheque on The Indian Overseas Bank, Lucknow only after receipt and acceptance of supply and installation/ if required satisfactory.
8. The acceptance of the quotation will rest with the Director who does not bind himself to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotation received without assigning any reasons.
9. The quotations are liable to be cancelled if any of the above mentioned conditions are not complied with.

Yours faithfully,

(Swapna Mazumdar)
Section Officer

Active Component

Line Number	Item Name	Description	Quantity
1	**AIR-CT2504-25-K9**	2504 Wireless Controller with 25 AP Licenses	1
1.0.1	CON-SNT-CT2525	SMARTNET 8X5XNBD 2504 Wireless LAN Controller with 25 AP	1
1.1	AIR-CT2504-K9	2504 Wireless Controller with 0 AP Licenses	1
1.2	AIR-CT2504-SW-7.6	2504 Wireless Controller SW Rel. 7.6 with WLAN Express Setup	1
1.3	CAB-AC2E	AC Power cord Europe	1
1.4	AIR-CT2504-CCBL	2504 Wireless Controller Console Cable	1
1.5	LIC-CT2504-5	5 AP License for 2504 WLAN Controller	5
1.6	LIC-CT2504-BASE	Base Software License	1
1.7	PS-SWITCH-AC-2P	2 Prong C7/C8 On-Off AC Power Supply Switch	1
1.8	LIC-CT25-DTLS-K9	2504 Wireless Controller DTLS License	1
2	**AIR-CAP1602I-N-K9**	802.11a/g/n Ctrlr-based AP Int Ant N Reg Domain	20
2.0.1	CON-SNT-C1602IN	SMARTNET 8X5XNBD 802.11a/g/n Ctrlr-ba	20
2.1	AIR-AP-T-RAIL-R	Ceiling Grid Clip for Aironet APs - Recessed Mount (Default)	20
2.2	AIR-AP-BRACKET-1	802.11n AP Low Profile Mounting Bracket (Default)	20
2.3	SWAP1600-RCOVRY-K9	Cisco 1600 Series IOS WIRELESS LAN RECOVERY	20
3	SRW 2024 P- K9 (SG300 - 28P)	Detailed Specifications are attached	2

Passive Component

Line Number	Item Name	Description	Quantity
1	Patch Cord	UTP CAT 6 Patch Cord (1 Mtr)	20
2	Patch Cord	UTP CAT 6 Patch Cord (2 Mtr)	20
3	CAT - 6 Cable	UTP Cat 6 Cable (305 Mtr)	3 Boxes

Job Work

	Job Work	Laying of Cat 6 Cable in PVC Pipes/Conduites including the cost of Material (Per Mtr of Conduits Used)	900 Mtr Approx
	Warranty	**Comprehensive one year on site**	
	Terms & Conditions	**Vendor Should attach Manufacturer's Authorisation for this tender**	

Active Component   *Qty: 02*

POE Switch

Feature	Requirement	Compliance (Y/N)
Physical Specification	Should have 26 Ethernet 10/100/1000 Ports among that 24 should support POE	
	2 combo mini-GBIC ports	
	Switches should support 802.3at PoE+, 802.3af, 15.4W to any port	
	180 W should be Power Dedicated to PoE	
General Specification	Switching capacity should be min 56 Gbps	
	Forwarding Rate should be should be more than 41 Millions of Packets per Second (mpps) (64-byte packets)	
	8000 MAC address supported	
	IGMP versions 1, 2, and 3 snooping : supports 1K multicast groups	
	Packet Buffer should be 8Mb or more	
	MTBF 241,995 hrs or more	
Layer-2 Features	Should Support all the features form Day 1	
	Standard 802.1d Spanning Tree support	
	Fast convergence using 802.1w (Rapid Spanning Tree [RSTP])	
	Multiple Spanning Tree instances using 802.1s (MSTP)	
	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP), Up to 8 groups, Up to 8 ports per group with 16 candidate ports for each (dynamic) 802.3ad link aggregation	
	IEEE 802.1Q VLAN encapsulation. Support for Up to 256 VLANs out of 4096 VLAN IDs	
	Port-based and 802.1Q tag-based VLANs	
	MAC-based VLAN	
	Management VLAN	
	Private VLAN Edge (PVE), also known as protected ports, with multiple uplinks	
	Guest VLAN	
	Unauthenticated VLAN	
	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS	
	VLANs transparently cross a service provider network while isolating traffic among customers	
	Protocols for automatically propagating and configuring VLANs in a bridged domain	
	Relay of DHCP traffic to DHCP server in different VLAN. Works with DHCP Option 82	

	IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 256 multicast groups (source-specific multicasting is also supported)	
	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router.	
	Head-of-line (HOL) blocking prevention	
Layer-3 Features	Should Support all the features form Day 1	
	Wirespeed routing of IPv4 packets	
	Up to 32 static routes and up to 32 IP interfaces	
	Support for Classless Inter-Domain Routing (CIDR)	
	Relay of DHCP traffic across IP domains	
	Relay of broadcast information across Layer 3 domains for application discovery or relaying of BootP/DHCP packets	
IPv6	Should Support all the features form Day 1	
	IPv6 host mode , IPv6 over Ethernet	
	Dual IPv6/IPv4 stack	
	IPv6 neighbor and router discovery (ND)	
	IPv6 stateless address auto-configuration	
	Path maximum transmission unit (MTU) discovery	
	Duplicate address detection (DAD)	
	IPv6 over IPv4 network with Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) support	
	Web/SSL, Telnet server/SSH, ping, traceroute, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, syslog, DNS client, protocol-based VLANs	
	ICMP version 6	
QoS Features	Priority levels - 4 hardware queues	
	Strict priority and weighted round-robin (WRR)	
	Queue assignment based on DSCP and class of service (802.1p/CoS)	
	Port based; 802.1p VLAN priority based; IPv4/v6 IP precedence/type of service (ToS)/DSCP based; Differentiated Services (DiffServ); classification and re-marking ACLs, trusted QoS	
	Ingress policer; egress shaping and rate control; per VLAN, per port, and flow based	
Network security features	SSH secures Telnet traffic to and from the switch; SSH v1 and v2 are supported	
	SSL support: Encrypts all HTTPS traffic, allowing highly secure access to the browser-based management GUI in the switch	
	Supports time-based 802.1X	
	Port-based ACLs (PACLs) for Layer 2 interfaces to allow application of security policies on individual switch ports. Support for up to 512 rules	

	802.1X: RADIUS authentication and accounting, MD5 hash; guest VLAN; unauthenticated VLAN, single/multiple host mode and single/multiple sessions	
	Dynamic VLAN assignment	
	A security mechanism to protect the network from invalid configurations. A port enabled for BPDU Guard is shut down if a BPDU message is received on that port	
	Secure Core Technology (SCT) to ensure that the switch will receive and process management and protocol traffic no matter how much traffic is received	
	Layer 3 isolation to Allow/disallow routing between IP subnets or directly connected IP networks	
	Layer 2 isolation Private VLAN Edge (PVE) with community VLAN - PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks	
	Locks MAC addresses to ports, and limits the number of learned MAC addresses	
	Supports RADIUS and TACACS authentication. Switch functions as a client	
	Storm control for Broadcast, multicast, and unknown unicast	
	DoS attack prevention	
	A TCP congestion avoidance algorithm is required to minimize and prevent global TCP loss synchronization	
	Drop or rate limit based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP)/IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP Flags	
Management	Built-in switch configuration utility for easy browser-based device configuration (HTTP/HTTPS). Supports configuration, system dashboard, system maintenance, and monitoring	
	SNMP versions 1, 2c, and 3 with support for traps, and SNMP version 3 user-based security model (USM)	
	Embedded Remote Monitoring (RMON) software agent supports 4 RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis	
	IPv4 and IPv6 dual stack to ease migration	
	Web browser upgrade (HTTP/HTTPS) and TFTP	
	Upgrade can be initiated through console port as well	
	Dual images for resilient firmware upgrades	
	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to one destination port. A single session is supported.	
	Traffic from a VLAN can be mirrored to a port for analysis with a network analyzer or RMON probe. Up to 8 source VLANs can be mirrored to one destination port. A single session is supported.	
	DHCP (Options 66, 67, 82, 129,and 150) to facilitate tighter control from a central point (DHCP server) to obtain IP address, auto-configuration (with configuration file download), and DHCP relay,	

	Text-editable config files that can be edited with a text editor and downloaded to another switch, facilitating easier mass deployment	
	Smartports for Simplified configuration of QoS and security capabilities	
	Auto Smartports that applies the intelligence delivered through the Smartport roles and applies it automatically to the port based on the devices discovered over CDP or LLDP-MED. This facilitates zero touch deployments.	
	Scriptable command-line interface. A full CLI as well as a menu-based CLI is supported	
	Traceroute; single IP management; HTTP/HTTPS; SSH; RADIUS; port mirroring; TFTP upgrade; DHCP client; BOOTP; SNTP; Xmodem upgrade; cable diagnostics; ping; syslog; Telnet client (SSH secure support)	
	The switch advertises itself using the Bonjour protocol.	
Safety certifications	UL (UL 60950), CSA (CSA 22.2), CE mark, FCC Part 15 (CFR 47) Class A	
Standards	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, IEEE 802.3ad LACP, IEEE 802.3z Gigabit Ethernet, IEEE 802.3x Flow Control, IEEE 802.1D (STP, GARP, and GVRP),IEEE 802.1Q/p VLAN, IEEE 802.1w RSTP, IEEE 802.1s Multiple STP, IEEE 802.1X Port Access Authentication, IEEE 802.3af, IEEE 802.3at, RFC 768, RFC 783, RFC 791, RFC 792, RFC 793, RFC 813, RFC 879,	
Support and Warranty	Lifetime warranty	