



NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM

Ravangla Campus, Barfung, South Sikkim 77139

Amendment

Date: April 21, 2017

**Regarding Tender no: 1) 37/NITS /Works/ICTI-PURCHASE/2017-18/Tender-01
2) 52/Academic/Computer-Centre/2017/Tender-01**

- 1) Bidder has to submit the signed copy of the following documents:
 - A. Valid certificate of registration with VAT/CST in state in which dealer is registered.
 - B. Valid certificate of sale tax.
 - C. Copy of trade license issued by local authority authorizing the vendor to bid in the category of goods for which bid has been submitted.
 - D. Valid firm/company registration certificate.
 - E. Quality assurance certificate (if any).
 - F. Credentials of supply to NITs/IITs/Central autonomous bodies/Central Govt. dept. or agencies.
 - G. Self certificate that the firm has not been black listed from participating in tenders by any central Govt. organizations.
- 2) For the tender of Computer Center (tender no: **52/Academic/Computer-Centre/2017/Tender-01**), revised EMDs are as follow:

Sl. No.	Item	EMD Value (₹)
1	Desktops	₹ 2,00,000/-
2	Online UPS (40KVA)	₹ 40,000/-
3	LAN Setup	₹ 20,000/-

- 3) Bidder has to submit the technical and financial bids following the formats as per Annexure I & II.
- 4) Bidder has to submit the firm and bank details following the formats as per Annexure III.
- 5) Revised technical specification of Desktops for both the tenders is attached as Annexure IV.
- 6) Revised technical specification for set up of Local Area Network for Computer Center (52/Academic/Computer-Centre/2017/Tender-01) is attached as Annexure V.
- 7) Last date of the tender is extended to **15th May, 2017, 5:00PM**. Technical Bid will be opened on **16th May, 2017, 11:00 AM**.

Annexure -I **Format of Technical Bid**

Tender No:

The following is the detailed technical bid against the above mentioned tender.

Sl. No.	Item	Make and Model No.	Technical compliance (Write Yes or No)	Detailed technical specification (Write Attached or Not attached)	OEM or Authorized dealership (Write Attached or Not attached)
1					
2					
3					
4					

From,
Vendor's Name:
Address:

e-mail ID:
Cont. No:

[Seal and Signature of the firm]

Annexure -II

Format of Financial Bid

Tender No:

The following is the detailed financial bid against the above mentioned tender.

Sl. No.	Item	Make and Model No.	Unit Price (₹)	Taxes CST (₹) with %	Total	ECESS 1% (₹) on Total	Grand Total (₹)
1							
2							
3							
4							

From,
Vendor's Name:
Address:

e-mail ID:
Cont. No:

[Seal and Signature of the firm]

Annexure III

Firm and bank details

<u>Sl. No.</u>	<u>Particulars</u>	<u>Information</u>
1	Name of the Firm	
2	Complete Postal Address with Tel. No., Fax/Email	
3	Date of Establishment: Professional Experience (in years)	
4	Registration details with concern authority, association to supply Server in Sikkim, India	
5	Name of the contact person Mobile no (Office) Mobile no (Home) e-mail Id	
6	Service Tax Registration No.	
7	Please enclose a cancelled cheque and copy of PAN card. Cancelled cheque & PAN card is to be submitted only once	
9	Firm (Beneficiary) Name	
9	Complete Bank Account No. of the Firm [beneficiary]. [In case of change in bank account vendor should write to Account Office]	
10	Bank Name	
11	Bank Address	
12	IFS Code no	

We undertake that all information provided above is correct and NIT Sikkim will not be responsible in case of any error on the part of firm.

[Seal and Signature of the firm]

Annexure IV

Technical specification for Desktop Set (CPU + Monitor + Keyboard + Mouse)

Unit 1	Processor	Intel® 6 th Generation or higher , Core i7 Quad Core CPU, minimum clock speed of 3.4 GHz, 8MB Cache or better
	Chipset	Intel® Q Series commercial chipset
	Motherboard	OEM Motherboard with OEM logo embossed on the motherboard
	Memory	8 GB DDR4 RAM expandable to 64GB; Four DIMM slots; Non-ECC dual-channel upto 2133 MT/s DDR4 SDRAM
	Hard Disk Drive	1TB HDD, 7200 RPM, SATA III 6 Gbps
	Optical Drive	DVD Writer
	Graphics	Integrated Graphics Card (2GB memory minimum)
	Audio	High Definition Integrated Audio with Internal Speaker
	Ethernet	Integrated Gigabit (10/100/1000 NIC) LAN
	Slots	Minimum 4 low profile PCI/PCIe Slots
	Bays	Minimum 4 bays with at least (2) 3.5" Drive bays & (1) ODD bay
	Ports	Front I/O (2) USB 2.0 ports, (2) USB 3.0 Ports, 3.5mm headphone output and microphone jack/ universal audio port; (2) USB 2.0 ports, (4) USB 3.0 Ports; (1) VGA/Display port/HDMI/DVI-D Port; (1) RJ-45 network connector (1) RS-232 serial port (2) PS/2 keyboard and mouse ports
	Operating System	Ubuntu/Linux/Windows
	Diagnostic Tool	Inbuilt Pre-Boot BIOS Diagnostics
	Security	TPM 1.2 Security Chip; SATA port disablement (via BIOS); USB enable/disable (via BIOS; Optional USB Port Disable at factory (user configurable via BIOS); Removable media write/boot control; Power-On password (via BIOS); Administrator password (via BIOS); Setup password (via BIOS)
Information Accessibility	Product details, specifications and brochure to be available in public domain	
Support	Drivers should be available for download from OEM site for at least 3 years from the date of purchase order	
Market Credibility	The OEM vendor should be of positive net worth for the last three years	
Unit 2	Keyboard & Mouse	PS/2/USB 104 keys keyboard (Same make as PC) PS/2/USB 2 Button Scroll Mouse (Same make as PC)
Unit 3	Monitor	19.5" or higher IPS Panel LED backlit with TCO 7.0
Warranty for all Units		3 Years Comprehensive Warranty for Parts, Labour and On-site service (3-3-3)

Annexure V

Local Area Networking (LAN) Setup

1. Wired LAN connection for 80 desktops as well as Wi-Fi connection is required.
2. All the Access Points should be compatible with the NIT Sikkim existing setup.
3. Digging, Cutting, Filling, Laying (including PVC conduit / HDPE pipe/ GI Pipe wherever required), Fixing and installation of the entire equipment will be the responsibility of the successful bidder.
4. Active components (Wireless Controller, AP's) and Switch and SFP modules proposed by the bidder should be compatible with existing setup of NIT Sikkim.

BOQ For Local Area Networking				
SL	Items	Description	Qty	Unit
1	Access Point	Wireless Indoor 802.11a/b/g/n/ac access point	2	Nos.
2	Access Switch	Layer 2 Switch having 24x10/100/1000BaseT + 4 SFP ports.	5	Nos.
3	UTP Cable	CAT6 UTP network cable	8	Boxes
4	Jack Panel	24 Port CAT6 Patch Panel	4	Nos.
5	Information Outlet	UTP CAT-6 I/O with Single Face Plate & SMB	80	Nos.
6	UTP Patch Cord	CAT6 UTP Patch Cord - 1Mtr	90	Nos.
		CAT6 UTP Patch Cord - 2Mtr	80	Nos.
7	15U Rack	15U Rack with 1 No PDU 6x5AMP, 4 No Cable Manager, 2 no Fan, 20 Pcs H/W Screw.	1	No.
8	Service & Installation	Installation, Integration & Documentation	1	Job

SL-1: Wireless Indoor Access Point (Qty-2 nos)			
S/N	Specification / Requirement	Compliance (Yes/No)	Deviation (If Any)
1	The APs should support the 802.11a, 802.11b, 802.11g and 11n and ac standards. It should also support 802.11ac standard in the 5 GHz band.		
2	Simultaneous client support on dual band radio is expected.		
3	Shall provide Min 22 dBm Radio output power for both Radio's.		
4	The access point is expected to detect clients that have dual band capability and automatically steer those client to use the 5GHz band instead of the 2.4GHz band.		
5	The antennas to be dual polarised and should be integrated inside the access point enclosure to minimize damage and create a low profile unit that does not stand out visually.		
6	The access point should have minimum 1 Gigabit Ethernet port.		
7	The access point should support 802.1q VLAN tagging		
8	The access point should support WPA2 enterprise authentication and AES/CCMP encryption. AP should support Authentication via 802.1X and Active Directory.		
9	Implement Wi-Fi alliance standards WMM, 802.11d, 802.11h and 802.11e		
10	The Access Point should provide for concurrent support for high definition IP Video, Voice and Data application without needing any configuration. This feature should be demonstrable.		

11	Support RF auto-channel selection by the following three methods: a) measuring energy levels on the channel; b) monitoring for 802.11 signal structures and; (c) detecting radar pulses. Other similar forms of smart selection shall also be accepted.		
12	Channel selection based on measuring throughput capacity in real time and switching to another channel should the capacity fall below the statistical average of all channels without using background scanning as a method.		
13	Should support up to 200 clients per AP is expected		
14	Should support DHCP Option 82 in standalone mode (without Controller) as well as in Managed mode (with Controller)		
15	For troubleshooting purposes, the administrator should have the ability to remotely capture 802.11 and / or 802.3 frames from an access point without disrupting client access.		

SL-2: L2 Switch (Qty-5 nos)

S/N	Specification / Requirement	Compliance (Yes/No)	Deviation (If Any)
1	L2 Managed Switch having 24x10/100/1000BaseT ports and 4xSFP slots		
2	Switching Capacity should be at least 56Gbps		
3	Packet Forwarding Rate should be at least 41.7Mpps for 64-byte packet size		
4	The switch should have non-blocking architecture & wire-speed performance under fully loaded condition from day-1		
5	It should have hardware reset button & fan-less design.		
6	The Switch should have following L2 features from Day-1		
7	MAC Address Table size: At-least 16000, support at least 256 static MAC		
8	Flow Control: IEEE 802.3x in full duplex, back pressure in half duplex & HoL blocking prevention		
9	IGMP v1 v2 with at least 256 IGMP snooping groups, Per VLAN IGMP Snooping, port based IGMP snooping fast leave.		
10	LLDP, LLDP-MED, IPv6 Neighbor Discovery, L2 multicast filtering,		
11	IEEE802.1D STP, 802.1w RSTP, Root guard or equivalent feature.		
12	The switch should be able to avoid the loop occurring in a single port connected to an unmanaged switch/hub by shutting down the corresponding port or corresponding VLAN		
13	IEEE 802.3ad Link Aggregation with at least 8 ports per groups & 14 groups per switch.		
14	Port mirroring for Tx/Rx/Both. One-to-One mode, Many-to-one mode		
15	IEEE 802.1Q VLAN, at least 256 Static VLANs, Voice-VLAN, asymmetric VLAN, auto surveillance VLAN		
16	The switch should have 802.1p support with 4 queues per port. Support strict & WRR queue handling technique.		
17	The switch should have Port-based ingress & egress bandwidth control with minimum granularity of at least 64kbps		
18	The switch is expected to have standard & extended Access control list		
19	The switch should have the following security features from Day-1: SSLv3, Broadcast/Multicast & Unicast storm control, port security feature with at least 64 MAC per port, traffic segmentation, ARP spoofing prevention, IEEE 802.1x, DHCP server screening, RADIUS server, Binding of IP address with MAC address & interface.		
20	The switch should have feature to protect the CPU from protocol control packet attack.		
21	The switch should have cable diagnostic feature to check the status of connected RJ45 cables.		

Cat6 UTP Cable		
Category 6 Unshielded Twisted Pair 4 pair 100W cable shall be compliant with ANSI/TIA/EIA-568-C.2-1 Additional Transmission Performance Specifications for 4-pair 100W Category 6Cabling. Cat6 cable should be tested up to 600MHz.		
Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP.		
The 4 pair Unshielded Twisted Pair cable shall be UL Listed, ETL Certified.		
All Category 6 cables shall meet or exceed the following characteristics:		
Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half shall not be accepted.		
Conductor Solid bare Copper		
Conductor Diameter 0.56±0.005mm (23 AWG)		
Insulation :High Density Polyethylene		
Jacket PVC		
Outer Diameter 6.1 mm nominal		
Temperature Range -20° to +70°C		
Cat6 UTP Patch Panel		
Should be made of powder coated steel, in 24 port configurations.		
Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit.		
Have port identification numbers on the front of the panel.		
Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.		
IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools		
Each port / jack on the panel should be individually removable on field from the panel.		
Improved cable management with optional cable management bar		
The Cat-6 transmission performance is in compliance with the ANSI/TIA/EIA 568C.2 standard		
Jack Connector Specification:		
Plastic Housing: ABS , UL94V-0 rated		
Operating Life: Minimum 750 insertion cycles		
Contact Material: Copper Alloy		
Contact Plating: 50µ” Gold plated on plug contact area		
Contact Force: 20N max (IEC 60603-7-4)		
Plug Retention Force: 15 lb.		
IDC Connector Specification:		
Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent		
IDC cap : ABS, UL 94V -0		
Contact Material: Copper Alloy		
IDC Contact Plating: Phosphor bronze with tin plated		
Insertion Force: 20N max (IEC 60603-7-4)		
Wire Accommodation: 22-26 AWG solid		

Cat6 UTP Information Outlet		
Single Port		
Write on labels in transparent plastic window – supplied with plate		
Screw hole covers – to be supplied with plate		
Face Plate with shutter		
Should be able to support variety of jacks – UTP, STP, Fiber, Coax etc.		
Category 6, TIA568 C.2-1 – 250MHz		
All information outlets for 100 W, 22-26 AWG copper cable shall:		
Use insulation displacement connectors (IDC)		
Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits.		
Be constructed of high impact, flame-retardant thermoplastic with color and icon options for better visual identification.		
Shutter is on face plate		
Insertion force: 20N max (IEC 60603-7-4)		
IDC : Housing PC + glass fiber , UL 94 V-2, 568A/B configuration		
Information outlet (RJ45 jack) should be covered under ETL Verification program for compliance with TIA568B.2-1		
Operation Temp: -10 C to 60 C		
Jack Specification:		
Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent		
Operating Life: Minimum 750 insertion cycles		
Contact Material: Copper alloy		
Contact Plating: 50 μinches gold on plug contact area		
Plastic Housing: Polycarbonate + glass fiber UL94V-2 rated		
Operating Life: Minimum 200 Re-terminations		
IDC Contact Plating: Phosphor bronze with tin plated		
Cat6 UTP Patch Cord - 1Mtr & 2Mtr		
Category 6 UTP factory crimped Patch Cord --1Mtr & 2Mtr		
Patch Cord should have shielded boot at both ends		
The Patch Cord shall, at a minimum comply with proposed ANSI/TIA/EIA-568-C.2-1 Commercial Building Cabling Standards Transmission Performance Specifications for 4 pair 100W Category 6 Cabling.		
Equipped with modular 8-position modular plugs on both ends, wired straight through with standards compliant wiring.		
Should have 50 micro inches of gold plating over nickel contacts.		
Should be covered by ETL verification program for compliance with TIA 568C.2-1.		
Conductor size: 24 AWG stranded bare copper		
Max O.D.: 5.6mm (.22")		
Jacket: PVC UL-94V-O		
Temperature range: -10oC to +80oC		
Operating life: Minimum 750 insertion cycles		
Contact blade: Phosphor bronze		

Contact plating: 50μ” Gold		
Plug dimensions & tolerances compliant with FCC Part 68.500 and IEC 60603-7		
Approvals: UL 444 for copper conductor		
Dielectric withstanding voltage :500 V AC		
Insulation resistance : 35 M Ohm (Max)		
Operating temperature: -10oC to 80oC		
15U Networking Rack		
19", 15U x 500mm depth Wall Mount Networking Rack		
It should confirm to DIN 41494 or equivalent standard		
It should be welded construction with steel frame		
Lockable tough ended glass front door		
19" mounting angle made of formed steel		
Powdered coated standard finish		
Top & Bottom welded cover with vented & cable entry exit cut outs		
2 pair of 19" mounting rails		
1U Cable Manager		
Roof Mounted Fan Unit		
230V AC, 6 way, 5 Amp Power Distribution Unit		
Mounting Hardware		

All the Passive components including Racks should be from same OEM
OEM should be ISO9001 and ISO14001 certified for design, development for LAN & WAN products.
Brand and company together presence in India should be for last 20 years.