School of Professional Studies

Netaji Subhas Open University
(Established by WB Act (XIX) of 1997, Recognized by UGC)
Ghosh Para Station Road, Kalyani, Nadia-741 235, Ph-033 2582 8292

Ref. No.AC/577   Date: 5/2/16

TENDER NOTICE

The university invites sealed quotations for establishment of computer laboratory for the School of Professional Studies at Kalyani Campus. As per following details:

1) Technical and commercial bids should be submitted duly signed and stamped by the vendor's authorized signatory on or before 3pm of February 15, 2016 in the box earmarked in the Finance section 4th Floor of the University.
2) The supply and installation of 32 numbers of Thin Client and 01 number of Server and structure networking should be done within less than 2 (two) weeks from the date of receipt of the purchase order.
3) Three (03) laptops (specifications as per Annexure-6)
4) The Vendors should be the original manufacturer of the equipment's or authorized supplier/representative in India. An Authorization letter from the manufacturer to this effect should be compulsorily furnished as enclosed Technical bid without which the bid will be rejected.
5) Bidders must be 5 years experience in execution of similar Project
6) OEM must be Head office in Kolkata.
7) The bidder must attach the experience for Supply & Installation of above equipment during the last 3 financial years in State Government or Govt. of India Department(s) /Reputed Organization(s) or PSU (in Nos. and Value). Please attach PO.
8) Three years on-site comprehensive warranty.
9) Vendor has to provide training for 7 days after successful installation.
10) Technical data sheet of equipment's and brochures.
11) PAN No, CST/VAT/TIN/Regn, ISO, 3 years Balance sheet with turnover of about 30Crore in respective three years etc.
12) All costs and charges, related to the bid, shall be expressed in Indian Rupees only and the above total cost shall be inclusive of all taxes, installation charges and customization charges
13) The bids submitted by the vendors should be valid for a minimum period of 90 days from the date of the opening of tender and the prices should be valid till execution of purchase agreement
14) OEM authorization certificate.
15) Entry/Octroi will be paid at actual on production of invoices for the same and should not be included in the total amount.
16) NSOU reserves the right to reject all or any of the quotations without assigning any reason thereof.

Tender to be submitted at the Office of the Finance Officer, 4th Floor, DD-26, Sector-I, Salt Lake City, Kolkata-700 064, Phone:033 4066 3201, Website: www.wbnsou.ac.in

Technical Bid:-

SL NO	Product Name	Quantity	Spec
1	Flexi Client (3Years Replacement Warranty)	32	Annexure 1
2	Moniter 18.5	33	Dell, HP,
3	Keyboard and Mouse	33	IBM, Logitech, Dell
4	Server (3 Years Warranty)	1	Annexure 2
5	Networking(structure network)	1	Annexure 3
6	UTM	1	Annexure-5
7	Online UPS With Battery (5KVA UPS systems with 20 nos. 26AH SMF batteries (make Numeric/ Exide/ Amara Raja/Rocket) along with Battery Rack & Battery interconnecting cables.)	1	Annexure-4

Commercial Bid:-

1) The Prices quoted in the commercial bids will be treated as full and final for the commercial evaluation of the bids
2) Any item additional to what is stated in the bill of material may be quoted as optional item in the commercial bid.
3) The commercial bid should explicitly mention the unit price for each component, total price of the hardware, all taxes as applicable, Installation, Customization & Integration charges and AMC charges strictly in the format mentioned above. In case of failure to do so, the bid will be rejected.
4) **Payment Terms:** After installation

Sl. NO	Name	Quantity	Rate	Tax	Total (Including TAX)
1	Thin Client	32			
2	Moniter 18.5"	33			
3	Keyboard and Mouse	33			
4	Rack(12U)	1			
5	Server	1			
6	UTM	1			
7	Online UPS Including Batteries	1			
8	WinSvrStd 2012R2 SNGL OLP NL Acdmc 2Proc	1			
9	WinSvrCAL 2012 SNGL OLP NL Acdmc	32			

	DvcCAL				
10	WinRmtDsktpSrvcsCAL 2012 SNGL OLP NL Acdmc DvcCAL	32			
11	OfficeProPlus 2013 SNGL OLP NL Acdmc	33			
12	Switch (24 Port and 16 Port) both	1			
13	Cat6 Cable 305 mtr.	1			
14	Faceplate&Cat6 Keystone	33			
15	Patch panel (24Port)	2			
16	Mounting Cord (3 mtr.)	66			
17	Electric wiring and point for 33 users.	33			
18	Other network Equipment's , Accessories Installation, Implementation, Raid Configuration Charges	1			

Annexure: - 1

Thin Client:-

Operating System	**Linux**
Support OS Connector	**Windows 8/Linux**
Virtualize Server Support	**Citrix Xen,VMware,TS Plus**
Application Locally Available	**Browser,Libra Office,Soft Dialer,Skype,PDF Reader**
Device Management	**Remote Assistance,Power/Usb Contral,Centralized Upgread,**
Run Multiple OS	**Multiple**
CUP	**Intel D2550 1.86GHz Processer Dual Core**
Memory	**2GB DDR3 RAM**
Storage	**8 GB DOM (SATA)**
Display Resolution	**DVI/VGA:1920x1200@60Hz**
Power Adapter	**12V 3A**
Consumption	**8W**
Dimension	**204x55x252MM**
USB2.0	**6**
Display Port	**DVI-1,VGA**
PS/2	**yes**
Network Port	**10x100x1000Mbps**

Audio(Mic-in/Line-Out)	yes
Serial(Expansion Port)	yes
Parallel	Yes
Wi Fi Dongle Support	Yes
Power Adapter	Yes
DVI to VGA Adapter	Yes
Stand	Yes
Bracket	Yes
Warranty	3 Years

Annexure: - 2

Server:-

Server	Tower Server
Rack Units	4U Pedestal
Processors	1 X Intel® Xeon® Processor E5-2609 v3 (15M Cache, 1.90 GHz)
Memory	2X16 GB = 32 GB DDR4 ECC LRDIMM, Support Up to - 1024 GB
Intel® Server Board S2600CW2	Intel® Server Board S2600CW2 A general purpose server board supporting two Intel® Xeon® processor E5-2600 V3 family up to 145W, 16 DIMMs, and two 1-Gb Ethernet ports.
Hard Disk Drive	2TB Enterprise Sata Drive X 2 Unit
Raid Configuration	Software RAID ESRT2 (0,1,5,10) and RSTe (0,1,5,10)
Power Supply	600W Fixed Power Supply
Warranty	**3Yr Onsite Advance Replacement Warranty**

Annexure: -3

Networking:-
  1) **Wall Mount Network Enclosure (Rack)**
- Confirms to DIN 41494 standards with elegant appearance & economy.
- Top & Bottom Panel with cable entry cut out.
- Front 5mm thickness Double Toughened Glass Door with Security Key Lock.
- Sturdy and Rugged Welded Frame Structure Comes Pre Assembled.
- De-greasing, Acidification, Phosphoric, Static Electricity or Powder Coat Surface Finish.
- Full frame is formed with High-quality C.R.C.A steel.
- Excellent Air Ventilation Design with Option for AC Cooling Fans.
- Able to withstand maximum load of 60 KG.
- Cabinets can be mounted directly to wall without the usage of any brackets.
- Including Accessories Cable Manager and Power Manager and others.

Size	12 U
Height (mm)	620
Width (mm)	550
Depth (mm)	450

2) 16-Port Gigabit Rack-mount Switch:-

Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT IEEE 802.3az Energy Efficient Ethernet
Features	RJ-45 Ports: 16 MAC Address: 8K Buffer Memory: 256KB Jumbo Frames: 9KB Transmission Method: Store and Forward
Filtering/Forwarding Rates	1000Mbps port – 1,488,000pps 100Mbps port - 148,800pps 10Mbps port - 14,880pps
Transmission Media	10BaseT Cat. 3, 4, 5 UTP/STP 100BaseTX Cat. 5 UTP/STP 1000BaseT Cat. 5E UTP/STP
Led Indicators	Per Port: Link/Act Per Unit: Power
Power Requirement	100~240V/AC, 50~60Hz
Power Consumption	6.21 Watts (Max)
Dimensions	441 × 131 × 44(L x W x H)
Weight	1.7 kg
Operating Temperature	0 to 40℃
Storage Temperature	-40 to 70℃
Humidity	Operating:10 to 90% RH (non-condensing) Storage: 5 to 90% RH (non-condensing)
Certifications	FCC Class A, CE

3) 24-Port Gigabit with 2 SFP Slots Rack-mount Switch:-

Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT IEEE 802.3z 1000BaseSX/LX IEEE 802.3az Energy Efficient Ethernet
Features	RJ-45 Ports: 24 SFP Slots: 2 MAC Address: 16K Buffer Memory: 448KB Jumbo Frames: 9KB

	Transmission Method: Store and Forward
Filtering/Forwarding Rates	1000Mbps port – 1,488,000pps 100Mbps port - 148,800pps 10Mbps port - 14,880pps
Transmission Media	10BaseT Cat. 3, 4, 5 UTP/STP 100BaseTX Cat. 5 UTP/STP 1000BaseT Cat. 5E UTP/STP
Led Indicators	Per Port: Link/Act Per Unit: Power
Power Requirement	100~240V/AC, 50~60Hz
Power Consumption	16 Watts (Max)
Dimensions	441 × 131 × 44(L x W x H)
Weight	1.95 kg
Operating Temperature	0 to 40℃
Storage Temperature	-40 to 70℃
Humidity	Operating:10 to 90% RH (non-condensing) Storage: 5 to 90% RH (non-condensing)
Certifications	FCC Class A, CE

4) CAT6 Cable

CAT6 Cable Description	UTP,Cat.6,23AWG, 4P, Horizantal Cable, Solid Copper UTP,Cat.6,7x31AWG,4P,Patch Cable,Stranded Copper
Type	Straight-Thru RJ-45 Cat6
Standards	Horizantal Cable (solid copper) / Patch Cable (stranded copper) CSA-C22.2 No.214, TypeCMTIA/EIA-568 C.2&ISO/IEC 11801
Conductor	**Horizantal cable:** Electrolytic Solid Copper 1x23AWG (1/0.5mm) **Patch Cable:** Electrolytic stranded coppers 7 x 31AWG (7/0.2mm)
Insulation	Polyolefin, Medium Density polyethylene
Overall Jacket	PCC,LSZH
Outer Diameter	6.0 mm
Min Bending Radius	**Installation**: 50mm/Operation: 25mm
Temperature Rating:	**Installation**: 0~+50°C / **Operation** : -20~+60°C
Packaging	Reel Box / 305 M

5) Single Face Plate ST Type:-

Material	ABS
Standards	ISO/IEC 11801
Dimension	86 x86mm
Environment temperature	25-45 C
Relative humidity	85% RH at 30
Atmosphere pressure	70-106kPa

Insulated resistance	2 x 10M/500V DC
Intensity	15kV(DC) / min
Others	Fit for RJ45 keystone jack and outlet plates

6) **Cat 6, Keystone, RJ45 - I/O (UTP)**

Meet ANSI/TIA/EIA-568-B.2 Category 6
Meet ISO/IEC Generic Cabling Standard 11801
Meet CENELEC Generic Cabling Standard En50173

Electrical	ABS
Current Roting	1.5Amp Max
Voltage Roting	150 Volts
Contact Resistance	20m-ohm
Insulation Resistance	500M-ohm
Dielectric Withstand Voltage	1000VAC RMS, 60Hz 1MIN.
Materials:-	Materials:-
Housing	ABS UL94V-0
IDC	PC UL94V-0, Accept 22-26 AWGSolid Cable
PCB	FR4 1.6m/m thickness, 2 layer
Contact	0.45m/m Phosphor bronze with **Gold plating on contact area**

7) **CAT6 24 Port Patch Panel - Shuttered I/O Based**

Usage	Rack Mount
Housing Material	Carbon Steel, Powder Coating
Body Colour	Black
Size (W x H	19" 1 Unit
Loading Capacity	24.Node (RJ-45)
Angle	180 Degree
Termination	110, T568A / T568B
Standards	UL
Environmental Temp	R-25°C ~ +60 °C
Gold Plating Contact	50U
Next	46.5 dB
Attenuation	0.42 dB
Max Rated Electric Current	1.5 A
Return Loss	20.4

8) **Cat-6 RJ-45 Shielded Mounting Cord**

Characteristic Impedence	100±15O @ 1 ~ 100MHz
Conductor Construction	105.80/km/20°C max

Conductor Resistance	105.80/km/20°C max
Conductor Size	25AWG x 4pairs
Connector Type	50 micron gold-plated connector
Description	ISO/IEC 11801; TIA/EIA-568-B.2
Dielectric Strength	AC 1.75kV/0.15sec
Flame RetardantTest	CM
Insulation Material	HDPE
Jacket Diameter	5.5±0.15mm
Jacket Material	PVC
Mutual Capacitance	56pF/m max
Propagation Delay	538nS/100m max @ 100MHz
Rating	75°C, 300V
Spark Test	2.5kV
Standards Compliance	ISO/IEC 11801; TIA/EIA-568-B.2
Structural Return Loss	19.0dB min at 100MHz

Annexure-4

Sl No:	Technical Parameters	TECHNICAL SPECIFICATION OF 5KVA (1Ph Input - 1 Ph Output) ONLINE UPS SYSTEM
1	UPS Capacity	5 kVA UPS System
2	Topology	True On-line Double Coverstion UPS
3	Output power capacity	4500 W
4	**Input**	
4.1	Rectifier	IGBT
4.2	Phase	Single Phase
4.3	Voltage	230V AC
	Voltage range	170V - 276V AC
		110V - 276V AC @ 50% load
4.4	Input Frequency	50 Hz
4.5	Power factor	0.99 to unity
4.6	Current THD	<5%
4.7	Inbuilt Isolation Transformer	Required at Input
4.8	System DC Voltage	$\geq 240V$
5	**Output**	
5.1	Inverter	IGBT
5.2	Nominal output voltage	230VAC $\pm 1\%$
5.3	Frequency	50Hz
5.4	Frequency synchronisation	45 to 55 Hz

5.5	Voltage THD	≤2% Linear Load
		≤5% Non Linear Load
6	**Battery**	
6.1	Battery Type	12 V Sealed Lead Acid Maintenance Free
6.2	Battery make	Numeric/ Exide/ Amara Raja/Rocket
6.3	Charger	Built-in solid state three stage recharge (Constant Current,
		Constant Voltage with float charge) and with temperature
		Compensation.
6.40	Back up time	30 Mins Backup
6.5	**VAH Required**	**≥6240**
7	**Efficiency**	
	AC/AC (overall efficiency)	≥ 85% (at full Load)
8	**Features**	
8.1	Eco mode	Available
8.2	Overload capacity	Available
8.3	Converter mode	Available
8.4	Bypass parameters configurable	Available
8.5	Display	LCD Display
8.6	Bypass	Static Bypass should be provided
8.7	Cold Start	UPS shall start up On DC Supply without mains input
8.8	Automatic Restart	UPS should start up automatically on mains resumption after battery low shutdown
8.9	Self Diagnosis	UPS should be capable to carry out self test of Rectifier / Charger / Battery & Inverter sections during start-up
9	**Mechanical**	
9.1	Ingress protection	IP 20
10	**General**	
10.1	Operating Temperature	0 to 45 Deg. C only for UPS
10.2	Noise level	< 55 dB @ 1 meter
11	LCD Display & Indication	Input Voltage
		Output Voltage
		Input Frequency
		Output Frequency
		Battery Charging / Discharging Levl
		Load Level
		Input High / Normal / Low / Fail
		Output Overload

12	LED Display & Indication	Output Short Circuit
		Output Fault
		Normal Mode
		Load on Battery
		Load on Bypass
		system fault
13	Audible Alarm	Mains Failure alarm
		Low Battery Alarm
		Overload
		Fault
		Bypass Mode
		UPS Warning
14	Bypass	Static Bypass
14.1	Maintenance Bypass	Available
15	**Communication**	
15.1	Serial Communication RS232 and USB Port (selectable)	RS232 Port and optional USB port
15.2	Interface to NMS (Network Management System)	SNMP Card for connecting the UPS to LAN
16	**Standards**	
16.1	ISO 9001 : 2008	
16.2	OHSAS 18001 : 2007	
16.3	ISO 14001 : 2004	

Annexure -5

A.	**General Requirements:**
1	The Firewall must be appliance based and should facilitate multi-application environment.
2	The Firewall should be ICSA Labs certified for ICSA 4.0 and EAL 4 certified, if not the same model
3	The platform should be based on real time, secure embedded operating system
4	Should support minimum 10 virtual firewall or more
5	The proposed system shall support unlimited IP/User license for Firewall / VPN (IP Sec & SSL)/ IPS/WCF/AV
6	Should provide a Http, Https, SSH, Telnet, SNMP based management console for managing and configuring various components of the appliance
7	The device should belong to a family of products that attains NSS Approved Unified Thread Management (UTM) Certification.
8	The device should belong to a family of products that attains IPv6 Ready Phase 2 & IPv6 Certification

B.	**Networking & System Performance Requirements:**	
1	The Firewall should have a minimum of 8 x 10/100/1000 interfaces with auto sensing capacity	
2	The platform should support the standards based Link aggregation technology (IEEE 802.3ad) to achieve higher bandwidth.	
3	The Firewall should support IEEE 802.1q VLAN Tagging with about 1024 VLANs supported (in NAT/Route mode)	
4	Should support automatic ISP failover as well as ISP load sharing for outbound traffic	
5	The Firewall should support Dynamic Routing Protocol for RIP1 & 2, OSPF, OSPFv3, BGP4, ISIS, RIPng	
6	The Firewall should support Static, Policy Based, and Multicast routing	
7	The Firewall should support throughputs of atleast 1 **Gbps or better for both small & large packets**	
8	Should support SSL VPN user support minimum 100 or more and no commercial for ssl license	
9	Should support concurrent session at least 500K	
10	Should support new session per second at least 3000	
C	**Operating System & Management Requirements:**	
1	Be proprietary to prevent inheriting common OS vulnerabilities	
2	Allow multiple OS firmware image for booting options	
3	Upgradeable via Web UI or TFTP	
4	Be easily backup or restored via GUI and CLI to/from local PC, remote centralized management or USB disk	
5	The system shall support profile base login account administration, offering gradual access control such as only to Policy Configuration & Log Data Access	
6	The proposed system shall be able to limit remote management access from certain trusted network or host with corresponding administrator account	
7	The proposed system should be able to facilitate administration audits by logging detailed activities to event log for management & configuration updates	
8	The administrator authentication shall be facilitated by local database, PKI & remote services such as Radius, LDAP and TACAS+	
9	The Firewall must be capable of clustering multiple firewalls together into a redundant and highly available stateful configuration without any extra license cost for creating HA.	
D	**Firewall Requirements:**	
1	The Firewall should support deployment modes as; "Stealth Mode" or "Route Mode" or "Transparent Mode" or "Proxy Mode".	
2	The proposed system should have integrated Traffic Shaping / QoS functionality	
3	Should support DHCP server & DHCP Agent functionality	
4	The Firewall should support Stateful inspection with optional Policy based NAT (Static OR Dynamic)	
5	The Firewall should support Inbound Port Forwarding with optional inbound Load Balancing	
6	Should support IPv6 ACL to implement security Policy for IPv6 traffic	

7	All internet based applications should be supported for filtering like Telnet, FTP,SMTP, HTTP, DNS, ICMP, DHCP, RPC,SNMP, BGP, IMAP, NFS etc
8	Should be able to inspect HTTP and FTP traffic when these are deployed using nonstandard port(i.e. when HTTP is not using standard port TCP/80)
E	**IPSEC VPN Requirements:**
1.0	The IPSEC VPN and SSL VPN capability shall minimally attain Internet Computer Security Association (ICSA) Certification or equivalent
2.0	The proposed system shall comply/support industry standards, L2TP, PPTP, IPSEC, and SSL VPN without additional external solution, hardware or modules:
3.0	The device should support:-
4.0	IPSEC (DES, 3DES, AES) encryption/decryption
5.0	SSL encryption/decryption
6.0	The system shall support the following IPSEC VPN capabilities:
7.0	Multi-zone VPN supports.
8.0	IPsec, ESP security.
9.00	Supports Aggressive and Dynamic mode
10.00	Support perfect forward secrecy group 1 and group 2 configuration
11.00	MD5 or SHA1 authentication and data integrity.
12	Automatic IKE (Internet Key Exchange) and Manual key exchange.
13	Supports NAT traversal
14	Supports Extended Authentication
F	**SSL VPN Requirements:**
1	The Firewall should be integrated solution and there should be no user based licensing for SSL VPN.
2	The Firewall should support for TWO modes of SSL VPN:
3	Web-only mode: for thin remote clients equipped with a web browser only and support web application such as: HTTP/HTTPS PROXY, FTP, SMB/CIFS, SSH, VNC, RDP
4	Tunnel mode, for remote computers that run a variety of client and server applications
5	The system shall provide SSL VPN tunnel mode that supports 32 and 64-bit Windows operating systems
6	The proposed solution shall allow administrators to create multiple bookmarks to add to a group and make these bookmarks available for SSL-VPN users.
G	**Network Intrusion Detection & Prevention System Requirements:**
2	The IPS capability shall minimally attain Internet Computer Security Association (ICSA) NIPS or NSS Certification
1	Should have a built-in Signature and Anomaly based IPS engine on the same unit
2	Able to prevent denial of service and Distributed Denial of Service attacks.
3	Signature based detection using real time updated database
4	The device shall allow administrators to create Custom IPS signatures
5.0	IPS Signatures can be updated in three different ways: manually, via pull technology or push technology. Administrator can schedule to check for new updates or if the device has a public IP address, updates can be pushed to the device each time an update is available.

6.0	Configurable IPS filters to selectively implement signatures based on severity, target (client/server), protocol, OS and Application types.
7.0	Supports automatic security updates directly over the internet. (i.e. no dependency of any intermediate device)
8.0	Security check updates do not require reboot of the unit.
9.0	Supports attack recognition inside IPv6 encapsulated packets.
10	Supports user-defined signatures with Regular Expressions.
11	Supports several prevention techniques including drop-packet, TCP-RST (Client, Server & both) etc. List all prevention options
H	**Antivirus System Requirements:**
1	The Antivirus capability shall minimally attain Internet Computer Security Association (ICSA) AV Certification or equivalent
2	The proposed system should be able to block, allow or monitor only using AV signatures and file blocking based on per firewall policy
3	The System should be able to scan following Protocols:
4	HTTP and HTTPS
5	SMTP
6	POP3
7	IMAP
8	Instant Messenger (AIM, YAHOO!, MSN, ICQ, SIMPLE)
9	The proposed system shall provide ability to allow, block and intercept (allow but quarantine) attachments or downloads according to file extensions and/or file types
10	The proposed system should be able to block or allow oversize file based on configurable thresholds for each protocol types and per firewall policy.
J	The solution should be capable scanning Encrypted VPN tunnel traffic originating from the unit for virus
I	**Web & Application Content Filtering System Requirements:**
1	The proposed system should have integrated Web Content Filtering solution without external solution, devices or hardware modules.
2	URL database should have at least 40 million + sites and 75 + categories.
3	The proposed solution should be able to enable or disable Web Filtering per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS traffic.
4	Should blocks web plug-ins such as ActiveX, Java Applet, and Cookies.
5	The proposed solution should be able to replace the web page when the web page matches the Web Filtering blocking criteria.
6	The proposed solution shall be able to identify, retrieve and rate the actual URL of the cache content commonly available in search engines such as Yahoo and Google.
7	The solution shall allow administrators to create multiple new local URL filtering categories besides dynamic categories
8	Should have application control feature
9	Should have the intelligence to identify & control of popular IM & P2P applications like KaZaa, Bit Torrent etc.
10	Should have minimum database of 1500 types of application awareness
J	**Data Leak Prevention Requirements:**
1	Should have the ability to prevent data loss through SMTP, FTP, HTTP, HTTPS & IM
2	Should have built in pattern database

K	Management & Reporting
1	It shall have a logging & reporting solution from day one on cloud or separate storage (not onbox)
2	The solution shall support logging of Firewall. Anti-Virus. Anti-Spam, IPS. URL Web filtering, Application security etc.

Annexure-6
Specification for Laptop

Brand &Model	Qty	Price
HP- Pavilion 15-ab034TX Notebook - Laptop	02	
Apple -MF855HN/A	01	

Finance Officer, NSOU