



कृपवा पत्रोतस्या प्राप्त यत्र संख्या, निति र खाममा विमाग तथा फाँट्र अस्तेख गर्नुहोसा ।

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**2** ४२४०१३४, ४-४०९३८ ४२६२८९४ জ্যাদন: ४२६२८७६ पी. स.स. २०४३८ Email: info@aupremecourt.gov.np

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# सूचना प्रविधि सम्वन्धि उपकरण खरिदको लागि तयार गरिएको स्पेसिफिकेसनको सुझाव सम्वन्धमा ।

उपर्युक्त सम्बन्धमा सर्वोच्च अदालतबाट आ. व. २०७३|०७४ को लागि आवश्यक पर्ने सूचना प्रविधि सम्बन्धी उपकरण खरिद गर्ने प्रयोजनका लागि तयार गरिएको स्पेशिफिकेशनको विवरण सम्बन्धित सबैको जानकारीका लागि यसै साथ प्रकाशित गरिएको छ । उक्त स्पेसिफिकेसनमा कुनै सुझाव भए मिति २०७३|०८|१३ गते भित्र itdepartment@supremecourt.gov.np मा ई-मेल मार्फत वा आफै उपस्थित भै सूचना प्रविधि महाशाखामा सुझाव उपलब्ध गराईदिनुहुन सम्बन्धित सबैमा जानकारीको लागि अनुरोध छ ।

सर्वोच्च अदालत काठमाण्डौ मितिः २०७३|०८|०७

#### 1. NEXT GENERATION FIREWALL

		Should be specified by Vendor
1	Brand	Should be specified by Vehidol
	Dianu	Model which fulfill following requirements as next generation
2	Model	firewall
		The Firewall solution offered must be rated as 'Leaders' /
	Industry	'Challengers 'in the latest Magic Quadrant for Firewall published
3	Certifications and	by Gartner.
	Evaluations	· ·
		At least 10 Gigabit ports and Expandable slot for future
		requirements.
		The Expansion slot should support 4X10 Gbps SFP+ ports.
		At least one Console port, USB Ports and one Lights-Out
	Architecture	management port.
4	Arcintecture	In-built storage of at least 400 GB
		Internal redundant power supply.
		16GB or higher Memory and expandable.
		At least 23 Gbps UDP Throughput and at least 7Gbps IPS
		Throughput
		Multiple protocol support with bittorrent and DNS,production IPS
		Throughput must be 1 Gbps or more
		Support 3DES/AES ipsec VPN throughput of at least 6 Gbps
	Performance &	Support at least 6 million concurrent sessions
5	Scability	Support at least 180,000 connections per second
		Support at least 1024 vlans
		Support at least 20 virtual context firewall.
		Support "Stateful" policy inspection technology
		Support IPSEC VPN & Bandwidth Management as integrated
		security functions
		Firewall and Integrated IPSEC VPN Applications should be ICSA
		Labs certified for ICSA 4.0, FIPS 140-2 certified and OPSEC
		Certified
		Fault tolerant (handle session failover, link failover and load
		balancing), Active - Active connections with HA from the
		beginning
6	Firewall Features	Link Aggregation functionality
U		Local access to the Firewall modules with authentication protocols
		like RADIUS & TACACS+, Authentication Header Protocols like
		MD5 & SHA1
		Ipsec encryption should support at least 3DES, AES-128 & AES-
		256 standards
		Able to filter fragmented & all ipv6 traffic.
		Address/host object limit must be above 50,000
		Should support Sandbox for new protections.

	T	
		Option to select or re-select specific signatures that can be
		deactivated
		Option to add exceptions for network and services.
		Functionality of Geo Protection to Block the traffic country wise.
		Features to analyze RAW packet and logs which is exportable to
		other log analyzer like wireshark.
		Application Intelligence should have controls for Instant
7	IPS Capability	Messenger, Peer-to-Peer, Malware Traffic etc.
,		Application control database should contain more than 6000
		known web 2.0 applications and at least 300,000 social network
		widgets.
		URL categorization that exceeds 150+ million urls filtering
		database. Should have pre-defined more than 100 categories.
		Capabilities to block, permit, allow & log, protocols other than
		HTTP, https, FTP.
		Scalability to scan & secure SSL encrypted traffic passing through
		gateway. Should perform inspection to detect & block malicious
		content downloaded through SSL.
	Application Control	Graphical reporting facility for user access and bandwidth demand,
8		forensic tools for infected users/device
		Able to detect & Prevent bot outbreaks and APT attacks
		Multi tien engine to detect & Duevent Command and Control
		Multi-tier engine to detect & Prevent Command and Control
	A 4: D - 4 E 4	IP/URL and DNS
	Anti Bot Features	Able to detect & Prevent attack types ie, such as spam sending
9		click fraud or self-distribution, that are associated with Bots
		Granular scanning of at least 70 different file types
		Detailed infection information per malware type and/or infected
		users and machines.
		Identify malware names and infection severity.
		Scan SSL encrypted traffic passing through the gateway.
10	Gateway Anti Malware/Anti-	Granularly define exceptions for SSL inspection to protect user
10		privacy and comply with corporate policy.
	Virus	Anti-Spam and Email security application must be content and
		language agnostic.
		Anti-Spam and Email security application must have real-time
		classification and protections based on detected spam outbreaks
1		
		which are based on patterns.
		The Anti-Spam and Email security application must include
	Anti-Snam &	*
11	Anti-Spam &	The Anti-Spam and Email security application must include
11	Anti-Spam & Email Security	The Anti-Spam and Email security application must include ipv4/v6 reputation blocking based on an online service.

		Security management application must be separate from firewall and Different modules (Firewall, VPN, IPS, Antibot, Antivirus, Antispam) of proposed managed from single user interface for at least 2 firewalls.  Must provide the option to add management high availability, using a standby management server that is automatically synchronized with the active one, without the need for an external storage device
		<u> </u>
		Must include a comprehensive map with all network objects and their connections that can be export to Microsoft Visio or to an image file
		The capabilities for multi-domain management and support the
		concept of global security policy across domains.
		The management GUI should be able to easily exclude IP V4/V6
		address from the IPS signature definition
		The Log Viewer should be able to easily exclude IP address from
		The management GIII should be able to easily get to IDS signature
		The management GUI should be able to easily get to IPS signature
		definition from the IPS logs
		The central logging must be part of the management system.
		Alternatively administrators can install dedicated Log Servers.
	Monagan4	Able to log almost all rules (+30k logs/sec)
12	Management,	Provide all features logs in details and can be access from one
12	Logging &	single GUI console/window.
	Monitoring	Include an automatic packet capture mechanism for IPS events to
		provide better forensic analysis  Provide different logs for regular user activity and management
		Provide different logs for regular user activity and management related logs
		Functionality to generate report for IPS, Application control, URL Filtering, NGTP features and can be scheduled as per requirement.
		Also capable to generate reports for User details and Bandwidth
		usages.  Provide the system information for each gateway: OS, CPU usage,
		memory usage, all disk partitions and % of free hard disk space.
		Include preconfigured graphs to monitor the evolution in time of
		traffic and system counters: top security rules, top P2P users, vpn
		tunnels, network traffic and other useful information. Also provide
		the option to generate new customized graphs with different chart types
		3 year all necessary subscription license and device replacement
13	Licensing/Warranty	warranty
13	Licensing/warranty	Full Administrative and professional configuration Training for at
14	Training	least two IT staff.
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#### 2. VIRTUALIZATION SOFTWARE

Product Description	Quantity
Virtualization Software	4 Processors (2 Hosts)
Virtualization management Software	For managing more than 3 hosts

S.No.	General Specifications for Hypervisor
1	Type 1 with OS/Machine independency
2	Bootbale from iSCSI, FCoE, and Fibre Channel SAN
3	Capable to create Virtual servers with at least 64 processors in VM for all the guest operating system supported by the hypervisor
4	Ability to integrate with NAS, FC, FCoE and iSCSI SAN and infrastructure from leading vendors leveraging high performance shared storage to centralize VM file storage
5	Capable to create VM templates.
6	Check pointing facility.
7	Able to thin provision disks.
8	Mechanism for smart card authentication for multiple VM.
9	Ability for live VM migration without any downtime.
10	Should have high Availability capabilities for the VM which is independent of OS Clustering and work with FC/ iSCSI SAN and NAS.
11	Auto Failover
12	GUI based manageable integrated, service oriented and stateless firewall with antivirus and anti-malware which is capable to restrict access to service based on IP & Subnet mask.
13	Remote configuration of each VM with IP & MAC.
14	Virtualization software must support NIC teaming for load sharing and redundancy.
15	Able to create virtual switches that connect VM
16	Configurable with 802.1q VLANs
17	Allow dynamic adjustment of teaming algorithms
18	Allow RAM over-commitment
19	Ability of remote installation of packages
20	Support for Microsoft Cluster Services between VM
21	Periodic VM Backup & recovery mechanism
22	Facility for array-agnostic replication of VM over LAN or WAN.

23	Support hardware/non-hardware accelerated 3D graphics.
24	Support enforcing security for VM at the Ethernet layer and disallow promiscuous mode, sniffing of network traffic, MAC address changes, and forged source MAC transmits.
25	Included with proactive smart alerts with self-learning performance analytics capabilities
26	Support for at least 62TB single file
27	Provided with link aggregation feature in the virtual switch
28	Provide prebuilt and configurable operations dashboards
29	Capable of automatically analyze monitoring infrastructure & data to be expressed as health, risk and efficiency measures
30	Should provide "What If" scenarios for elimination of need for spreadsheets, scripts and rules of thumb
31	Has flexible reporting capabilities for resource consumption trends
32	Mechanism for self-learning capability for operations management and eliminate false alerts
33	Advanced capacity analytics for VM optimization
34	Flexibility in group policy making for admin to define specific health, risk and capacity thresholds, alert types and notifications, business hours and many other configuration settings at a group level to prioritize operational activities for business critical applications, production workloads or business units
35	Support of automated workflow triggers
36	Support should be from Original OEM

S. No.	General Specifications for Management Component
1	Virtualization management software console shall provide a single view of all VM, allow monitoring of system availability and performance and automated notifications with email alerts.
2	Flexible and robust management software to provide the core administration interface as a single Web based interface which is remotely manageable with internet browser enabled devices.
3	Automatic deployment of Hypervisor host & creating of VMS from configuration templates
4	Capable of simplifying host deployment and compliance by creating VM from configuration templates.

5	Integrated Physical Host and VM performance monitoring like CPU, Memory, Disk, Network, Power, Storage Adapter, Storage Path, Cluster services, VM data stores.
6	Software console for reporting & visualization of performance and utilization of VM which co-exist and integrate with other vendors
7	Support offline VM migration & cloning support
8	Provide Interactive topology maps to visualize the relationships between physical servers, VM, networks and storage.
9	Software console need to maintain a record of significant configuration changes and the administrator who initiated them.
10	Manageability of the complete inventory of VM, and physical servers with greater visibility into object relationships.
11	Should provide a global search function to access the entire inventory of multiple instances of virtualization management server, including VM, hosts, datastores and networks, anywhere from within Virtualization management server.
12	Support for user role and permission assignment (RBAC)
13	Deploy and export VM, virtual appliances in Open VM Format (OVF).
14	Allow reliable and non-disruptive migrations for Physical/ VM running OS to virtual environment.
15	Provision for automated host patch management with no VM downtime
16	Should generate automated notifications and alerts, and can trigger automated workflows to remedy and pre-empt problems.
17	Integrate able into existing standard EMS systems.
18	Single Sign-on management for all resources by admin.
19	Provide Orchestration facility. The workflows should be launched directly from the Web Client itself
20	Support should be from Original OEM

**3. GIGABIT ETHERNET SWITCH**Preferred Brands: Cisco, Compex, juniper or equiv.

S.No.	Ports: 48 gigabit ports
1	SFP: 2
2	1U, 19" rack mountable
3	Packets filtering based on MAC & IPv4/IPv6 address-ACLs, TCP/UDP ports,
	Snoofing/Spoofing control capable,
4	Fully Manageable, multilayer(L2,L3), VLAN/VTP support, IPv6 protocol support,
	LMS
5	32-MB Flash memory or higher

6	Configurable of >= 16,000 MAC addresses
7	AC power supply, temperature range: 0-45°C
8	Warranty Period: 1 year

#### 4. LAPTOP

6 <sup>th</sup> Generation Intel Core i5 or higher (>=2.70 GHz, 3MB Cache)
>=4GB - 1600MHz DDR3L SDRAM
>=500GB 7200rpm HDD
Built in Intel HD Graphics >=5500
14.1" HD, Anti-glare LED backlight
Genuine Windows 10 Pro 64 bit (Factory Installed with OEM license)
Minimum 6 hrs backup, Li-Ion battery
Integrated camera
Standard Keyboard
Wireless (b/g/n) with Bluetooth
Three USB 3.0, HDMI/(VGA), Ethernet RJ-45, Mic/Headphone combo jack, 4-in-1 Media card reader
Mil-Spec tested
Genuine Laptop bag
<=2.1 Kg
Three Years

### **5. DESKTOP COMPUTER**

Processor	Intel Core i5-4570 ( 3.2GHz, 6MB Cache)
Chipset	Intel Family
Memory Bus	>=1600 MHz
Memory	>=4GB 1280 MHz DDR3, expandable
Hard Disk	>=500GB 7200 RPM
Monitor	>=18.5" HD, LED
Operating	
System	Genuine Windows 10 Pro (Factory Installed with OEM License)
Keyboard	USB Full-size Keyboard
Optical Drive	DVD SuperMulti Drive
Mouse	USB Optical Scroll Mouse, Mouse Pad
Network	Gigabit Ethernet, Wake on LAN
	USB ports, Serial, Two PS/2 (Keyboard & Mouse), Ethernet (RJ-45), VGA,
Ports & Slots	Display Port, Microphone-in, Headphone-out, PCI slot
Warranty	Three years manufacturer
Note: 1. The computer should support offline simulated sine wave.	

#### 6. PRINTER

Function	Print only
Print Technology	Laser
Print Resolution	600 x 600 dpi or higher
Speed	>=15 ppm
Memory	>=28 MB
First Page Out	<=9.3 second or less
Connectivity	1 Hi-Speed USB 2.0, 1 Host USB, Cable
OS Support	Windows (all versions), LINUX
Included	
Standard	Cartridge, User Manual
Warranty	One year

#### 7. SCANNER

Scanner Type	Flatbed		
<b>Scanning Method</b>	CIS (Contact Image Sensor)		
Light Source	3-colour (RGB) LED		
<b>Optical Resolution</b>	4800 x 4800dpi or higher		
Selectable Resolution	25 - 19200dpi		
Grayscale	16-bit input 8-bit output		
Color	48-bit input (16-bit for each colour) 48 or 24-bit output (16-bit or 8-bit for each colour)		
Scanning Speed	Color A4 300dpi <=12 secs.		
Max. Document Size	A4, LTR:	216 x 297mm	
Scanner Buttons (EZ Buttons)	At least 4 buttons (PDF, AUTOSCAN, COPY, SEND)		
Interface	USB 2.0 Hi-Speed		
Power Supply	Supplied via USB port		
Warranty	1 year		

## 8. WIRELESS PROJECTOR

Make/Model	Should be specified by Bidder
<b>Projection Technology</b>	DLP
Chip	1 x 1.65 cm (0.65") 2x LVDS DMD Chip
Native Resolution	1024 x 768 (XGA) or higher

Aspect Ratio	4:3	
Contrast Ratio	10000:1 or higher	
Brightness	3200 ANSI Lumen or higher	
	Auto power on/off	
	Quick start	
	Direct power off	
	Usb display	
	2 hdmi inputs	
	wireless network capability	
Features	Remotely adjustment of parameters or settings.	
Lamp Lifetime	3000 Hrs or higher	
Lens	F= 2.4–3.1, f= 17.09–29.05 mm	
Supported Resolution	>=1024 x 768	
Input / Out put	VGA 15-pin D-sub, HDMI w/ HDCP, USB A type, RCA	
Video	RCA	
Audio	L/R RCA (shared by video sources), 1/8 in. stereo, microphone	
Monitor out	VGA 15-pin D-sub	
Audio out	Yes	
Accessories	Batteries	
	Power cord	
	RGB signal cable	
	Lens cover	
	User manual	
	• CD-ROM	
	Carrying case	
Warranty	1 year	

#### 9. E-HAJIRI DEVICE

Hardware and	CPU	32 bit Microprocessor
platform	MEMORY	>=64MB RAM , 256 Flash
	SENSOR	Scratch Proof High Performance Optical sensor
	DPI Rating	>=600 dpi resolution
	Sensor area	>=16mm*14mm
	OS	Embedded Linux OS
	Operation	Offline
	Mode	
	Display	4.3* touch screen TFT
	Indicators	Audio visual indication
Operation Capacity	Face	>=1200 users (1:N)
	templates	

	Fingerprint	>=3000 users
	Templates	
	Card Ids	>=10000 users
	Transaction	>=100000 logs
	capacity	
Verification	Verification	360° verification angle
	Angle	
	Verification	<=1s
	time	
	Algorithm	Advanced Smart finger algorithm V15.0 or higher
	Verification	1:1;1:N
	mode	
	Authenticatio	Finger print, EM Card, face, password,
	n Modes	
Operational Features	Backup	Inbuilt battery backup for up to 6 hours standby time
	Battery	
	Voice	Supported
	notification	
	Real time	Supported
	Clock	
	Language	Multi-language support
	Card Reader	3-5 cms read range
	Range	
	Camera	High Resolution Infrared camera
Communication	Ethernet	TCP/IP 10/100 ethernet interface
	USB	USB 2.0 for communication and data backup
Warranty	One year comp	lete parts replacement warranty.

#### **10. ANTIVIRUS**

S. No.	Features	Details	
1	Integrated	Anti-Virus for Security Center	
	Protection	Anti-Virus for Endpoint Security for Windows,	
		Linux & MAC	
		Anti-Virus for Linux File Server	
		<ul> <li>Anti-Virus for Windows Server Enterprise Edition</li> </ul>	
		Anti-Virus for Security for Mobile & portable IT device.	
2	Operating System Protection & Support	. Workstations: Windows, Linux etc.	
3	Protecting shared storage	. File servers, Storage Server, Linux(Including Samba),Novell	
4	Threat	Trojans, Botnets, Spam, Malicious Web sites, data loss and data	
	Protection(Major)	theft. Malware, Intrusions. Detections & Prevention, Spyware, Virus	

		,Hackers attack, Anti-phishing, Removal Device Control, Tablets or
		security for mobile with Mobile device Management.
5	Administration	. Centralized installation, management and updates
3	Aummstration	. Scalability
		·
		. Dashboard display current status of Network antivirus protection
		. Device Control to manage employees use of removable media
		. Dedicated security policy for remote users
		. Support for network access control technology(Cisco NAC and
		Microsoft NAP)
		. Comprehensive reports on network protections status
6	Features	. Single Sign on web console
7		. Protection against zero- day attacks
		. Web security for safe surfing
		. Desktop firewall block hackers and intrusions
		. Personal Firewall for protection on any type of Network, including
		Wi-Fi
8	Service & Support	. Full service and support during the License period
9	<b>Application Control</b>	Allow, deny or restrict the behavior of applications running in our environment.
11	One Management	Should have one 'single pane of glass', that administrator can view and
	Console	manage the entire security scene — virtual machines, physical and
		mobile devices alike.
12	Remote deployment	Central deployment of software to client machines, even to branch
	of software	offices.
13	Remote anti-theft	SIM-Watch, Remote Lock, Wipe and Find all prevent unauthorized
13	tools	access to corporate data if a mobile device is lost or stolen.
14	License &	License installation key and certificate must be issued on the name of
	Certificate	Supreme Court Nepal
15	Certification	ISO 9001
16	Format,	Should take full responsibility of installation within Supreme Court
	Installation,	Premises around 500 desktop/laptops including formatting and setup
	Partition & Dust	all computer if required.
	Free	1

# 11. OUTDOOR LED DIGITAL DISPLAY SCREEN

Item's	Description's
	Any Brand which can fulfill following technical requirement
Brand	7.1 W'. 1 * 2.2 H . 1 . 1 . 2
Screen Area	5.1 Wide * 3.2 Height = 16 Sq.Meter or higher in same ratio.
LED Module	P8 Module
LED Screen	P8 DIP 1R1G1B
Screen Resolution	Min 40 or Higher
Synchro	Linsn Sending Card - 1 quantity
Controlling	Linear Dessiving Cond. 40 quantity on higher
Synchro Controlling	Linsn Receiving Card - 40 quantity or higher
DVI Card	ATI graphic card
LED Software	Any supported Software
Video Processor	True Seamless switching, High quality scaling technology,
V 1000 1 10005501	Min. 10-bit sampling and internal processing/scaling,
	Min. 4* Composite (CVBS), Min. 2*VGA (compatible with YPbPr)
	and Min. 2*DVI (Compatible with HDMI)
	Min.1*VGA Output and 2*DVI Outputs.
Multi-function	Auto Brightness
Minimal Viewing	
Distance	8 Meter Approx.
Viewing Angle	H:140 Degree (Min.) / V: 120 Degree (Min.) or higher
Display items	Text, Pictures, Video etc
Audio	Yes
IP Grade	IP65
Temperature	-5 Degree C ~ 50 Degree C
Working Humidity	15%-70% Relative Humidity
Lifespan	Min 100000Hours or Higher
Module Parameter	
Pixel Pitch	8 mm
Resolution	40 or higher
Pixel Quantity	1600 or better
Application	Outdoor, Weatherproof, High wind resistance, Great heat dissipation
	performance
<b>Cabinet Parameters</b>	
Signal Interface	DVI
Type	Die-casting aluminum (hoisting)
Source Compatibility	S-Video, HDMI, VGA, HD_SDI, YPbPr, PAL/NTSC
Warranty	At least 3 Years with parts replacement facility.