



KENYATTA NATIONAL HOSPITAL

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Ref: KNH/SCM/ADM.43

Date: 17th June, 2026

ADDENDUM 1

To: ALL BIDDERS

RE: ADDENDUM TO TENDER NO: KNH/T/82/2025-2026- SUPPLY, DELIVERY, INSTALLATION, CONFIGURATION AND COMMISSIONING OF SECURITY SCREENING EQUIPMENT FOR KENYATTA NATIONAL HOSPITAL

Pursuant to the Public Procurement and Asset Disposal Act section 75 and its attendant Regulations 2020 and Clause 7 on Amendment of Tender Documents, the Hospital wishes to make the following amendments/clarifications;

Stage 2. TECHNICAL SPECIFICATIONS

The item specifications table has COMPLETELY BEEN EXPUNGED and replaced as per the annex attached.

Tender Opening and Closing date remains the same i.e 25th June, 2026 10.00 hours Kenyan time.


Dr. Abdallah Ofula
FOR: CHIEF EXECUTIVE OFFICER

Walk-through Metal Detector.		
ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
Size	Tunnel Size-1980 mm(H) × 730 mm(W) × 501 mm(D) Dimension-2255 mm(H) × 864 mm(W) × 579 mm(D)	
Performance	Detection Accuracy-One-coin size (approx. φ25mm) metal Detection Zones-33 Sensitivity Levels-0 ~ 999	
Safety & Control	Log in Method-Password Control Method-Infrared remote controller / web browser	
Display	Parameter One 7-inch LCD color screen Zones Alarm Indicator Two side (entrance and exit) LED light bar	
System Functions	Time / Date, passage counting, power on self-diagnostics, sensitivity adjustment, frequency adjustment, environment calibration, multi detection mode, built-in multi detection mode, match automatically frequency, programmable random alarm capability, programmable alarm output, system information management and alarm parameters management, etc.	
Health & Safety	Comply with international standards, it is harmless to people with heart maker, pregnant woman etc.	
Interface	Power 1 AC power interface Network 1 RJ45 10/100M Ethernet port. Alarm Output 2 relay output	
Device Parameters	Power Supply AC 100-240V, 50Hz/60Hz Max. Power Consumption 60W Operation Temperature / Humidity -20 °C to 45 °C / 0 % to 95 % (non-condensing)	
Certification	The proposed product Must be TSA approved. Proof of TSA certification is required.	
Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted		

Security Screening Machine

ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
Size	Tunnel Size Dimension 1000 mm(W) × 1000 mm(H) 3279 mm(L) × 1296 mm(W) × 1810 mm(H) Operation Desk Size 850 mm(L) × 650 mm(W) × 1180 mm(H)	
Performance	Line Resolution-36 AWG standard, 38 AWG typical Penetration- (Steel) 30 mm standard, 34 mm typical	
X-ray Generator	X-ray Generators-1 Anode Voltage / Current- 160kV / 1.0mA (Adjustable) Cooling / Working Cycle - Oil-cooling / Continuous Vertically downward Orientation	
Radiation	External Dose Rate < 1.0 µSv/h (100mm away from the device surface) Film Safety- Standard of ASA / ISO1600	
Conveyor	Height-300 mm Speed 0.2 m/s, 0.3 m/s, 0.4 m/s adjustable Load 200Kg	
Monitoring System	Sensor Type 1 / 2.8" Progressive Scan CMOS Cameras 6-ch Video Compression Standard H.265 / H.264 / MJPEG Max. Resolution 1920 × 1080 Video Storage Capability More than 30 days	
Display	Screen Size 23.8", Double-screen 1920 × 1080 @ 120Hz Resolution	
Intelligent Functions	AI Detection 35 categories with 64 types Login Method-Face / Fingerprint / Password	
System Functions	Standard-Time / Date, baggage counting, user management, log management, X-ray on time, power on self-test, bi-directional scanning, enhanced scanning, system information management, built-in system diagnostics, standby mode, training, on-penetration alarm, explosive detection, etc.	
Image Processing Functions	Image Enhancement- Color / Black & White(C/B&W), Organic stripping (ORG-), Inorganic stripping (INORG-), Negative, High / Low penetration(H/L), Absorptivity	

	Material Classification-3 Colors mode (Default) 6 Colors mode (Optional) Image Storage Capability- 100,000 +	
Device Parameters	Power Consumption-Max. 0.8 kW Power Supply AC 220V (-15% to +10%) , 50Hz/60Hz (±3Hz), Noise Level 60dB(A), 1000 mm away from the device surface	
Certification	The proposed product Must be TSA approved. Proof of TSA certification is required.	
Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted		

Intelligent Fusion Server Ultra			
S/NO	ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1.	AcuSeek Modeling Performance	<p>High-performance AI processing capability based on resolution:</p> <ul style="list-style-type: none"> • 2MP: 6,000,000 targets/day (~80 targets/sec) • 5MP: 4,000,000 targets/day (~50 targets/sec) • 8MP: 3,200,000 targets/day (~40 targets/sec) • Performance is scalable based on mixed-resolution deployment scenarios. 	
2.	Intelligent Analysis Capability	<p>Supports advanced AI engines including:</p> <ul style="list-style-type: none"> • search engine • Face analysis and recognition • Video structuralization • Face clustering and classification <p>Channel support: 256 channels (2MP) 128 channels (>2MP to 5MP) 64 channels (>5MP to 8MP)</p> <p>Each engine supports AI tasks such as face analysis, structuralization, and recognition. AcuSeek requires enabling at least one video structuralization engine.</p>	
3.	Face Analysis	<p>Supports deep facial intelligence including:</p> <ul style="list-style-type: none"> • Gender, age group, glasses, mask detection • Facial expression recognition <p>Face comparison, classification, and real-time analysis Performance:</p> <ul style="list-style-type: none"> • Image analysis: 6 engines, 64 pictures/sec per engine • Video processing: 12-30 fps • 1:1 face matching: up to 64 comparisons/sec <p>Detection angle limits:</p> <ul style="list-style-type: none"> • Live face capture: $\leq 55^\circ$ horizontal, $\leq 35^\circ$ vertical • Face database images: $\leq 30^\circ$ horizontal, $\leq 25^\circ$ vertical 	

4.	Data Storage	<p>Supports up to 60 million structured records (hot data)</p> <p>AcuSeek / AcuSearch database: 18 million face records</p> <p>Face search response time: ≤2 seconds</p> <p>Supports high-speed picture-based search and retrieval</p>	
5.	Hardware Specifications	<p>CPU: Hygon 7360 × 2 processors</p> <p>Memory: 128 GB DDR4 (16 GB × 8 modules)</p> <p>GPU: H12 AI cards × 2 + NVIDIA L2 × 5</p> <p>Storage configuration:</p> <ul style="list-style-type: none"> • 240 GB SSD × 2 (RAID 1) • 480 GB SSD × 4 • 4 TB SATA × 1 • 8 TB SATA × 4 (RAID 5) <p>Network interfaces:</p> <ul style="list-style-type: none"> • 2 × 1Gb RJ45 • 2 × 10Gb SFP+ <p>USB ports: USB 2.0 × 2, USB 3.0 × 2</p> <ul style="list-style-type: none"> • VGA output × 1 • Cooling: 4 system fans • Power: 890W rated, 1200W max consumption • Power supply: Hot-swappable 1+1 redundant PSU • Security: TPM hardware security chip 	
6.	Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted			

Abnormal Event Detection Server		
ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
Algorithm Type	<p>Perimeter Protection: line crossing, intrusion detection, region entry/exit</p> <p>Street Events: fast moving objects, people falling, physical conflict, crowd gathering, unattended baggage</p> <p>Indoor Events: absence detection, overtime stay, abnormal crowd density, physical conflict, falling detection, mobile phone usage detection</p> <p>Trend Analytics: people density analysis and people counting</p>	
Algorithm Loading Time	20 S	
Protocol Type	ISAPI	
Cluster Capacity	1	
Virtual Machine Storage	100,000 alarm messages & images	
Data Type	Picture or Video	
Supported Algorithm Type	Large Model: Single detection, combined algorithm, dual detection; Small Model: Classification, OCR (Optical Character Recognition).	
Video Frame Rate Requirement	Stream: H.264 video stream / H.265 video stream; Frame rate: 12/s to 30/s; Stream packaging format supported by video importing: ps/ts/mp4/avi/mbf/asf/h.264/h.265(HIKVISION/svac / hik es / Dahua es / Tiandi platform es; Video size: no more than 100GB in total, and no more than 10GB per video	
Picture Analysis Performance	Performance specification (2 MP resolution with less than 10 targets in the scene): Object detection, single tag classification, multiple tags classification, multiple attributes classification, mix (1 for detection, 3 for classification) and 256 pictures per second.	

Video Analysis Performance	Performance specification (2 MP to 8 MP (4096 × 2160): resolution-insensitive; tracking 64 targets in scene at the same time and outputting one target per second): Object detection, single tag classification, multiple tags classification, multiple attributes classification, mix (1 for detection, 3 for classification) 64 channels video analysis.	
Picture rotation analysis	Performance specification (2 MP resolution with less than 10 targets in the scene): Object detection, single tag classification, multiple tags classification, multiple attributes classification, mix (1 for detection, 3 for classification). Support up to 16 tasks of scheduled capture analysis (each capture task can link to more 16 channels rotation analysis, capture interval can be 1 to 3600 seconds).	
Memory	16G*4	
Network Interface	4 × 1,000 Mbps Ethernet ports	
CPU	Intel Xeon Silver 4114 @2.2 GHz 10 Core Processor	
GPU	2-4 x NVIDIA A100 / H100 or RTX 6000/8000 (if lower scale)	
Storage	4 TB*2 NVMe SSD	
Storage (Video Caching / Analytics)	10TB SSD or NVMe per server	
Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted		

LAPTOP		
ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
Processor	Intel Core i7-13620H, 10C (6P + 4E) / 16T, P-core 2.4 / 4.9GHz, E-core 1.8 / 3.6GHz, 24MB	
Graphics	Integrated Intel UHD Graphics	
Memory	16GB Soldered LPDDR5x-5200	
Storage	1TB SSD M.2 2242 PCIe® 4.0x4 NVMe®	
Storage Slot	One M.2 2242 PCIe® 4.0 x4 slot	
Microphone	2x, Array	
Chipset	Intel SoC Platform	
Speakers	Stereo speakers, 2W x2, optimized with Dolby Audio	
Audio Chip	High Definition (HD) Audio, Realtek ALC3287 codec	
Display	14" WUXGA (1920x1200) OLED 400nits Glossy, 100% DCI-P3, 60Hz, TÜV Low Blue Light, Glass, Touch	
Touchscreen	10-point Multi-touch	
Keyboard	Backlit, English (UK)	
Camera	FHD 1080p with Privacy Shutter	
Touchpad	Buttonless Mylar surface multi-touch touchpad, supports Precision Touchpad (PTP), 75 x 120 mm (2.95 x 4.72 inches)	
Ethernet	No Onboard Ethernet	
WLAN + Bluetooth	Wi-Fi 6, 802.11ax 2x2 + BT5.2	
Standard Ports	"1x USB-A (USB 5Gbps / USB 3.2 Gen 1) 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), Always On 2x USB-C (USB 10Gbps / USB 3.2 Gen 2), with USB PD 3.1 and DisplayPort 1.4 1x HDMI 1.4b 1x Headphone / microphone combo jack (3.5mm) 1x microSD card reader	
Fingerprint Reader	Touch Style, on Palm Rest	
Security Chip	Firmware TPM 2.0	
Operating System	Activated: Windows 11 Pro, English Microsoft Office 2019	
Pen	Digital Pen 2	
Battery & Power Adapter	Integrated 57Wh & 65W USB-C (3-pin)	
Accessories	External Ethernet Adapter 3.0 Gigabit USB, Laptop Bag & wireless mouse	
Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted		

Dome Camera

S/NO	ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1.	Camera	1/1.8" Progressive Scan CMOS sensor with maximum resolution of 2688 × 1520 . Supports ultra-low light performance (0.0003 Lux color, 0.0001 Lux B/W, 0 Lux with IR). Includes IR cut filter and blue glass module for reduced ghost effects. Full mechanical adjustment: Pan 0°-355°, Tilt 0°-85°, Rotate 0°-355°.	
2.	Lens	Motorized varifocal lens 2.8-12 mm with wide field of view (H: 91.3°-44.2°). Supports auto, semi-auto, and manual focus with P-Iris (F1.0-F1.2) for precise exposure control.	
3.	Dori	Detect: 140.7 m , observe: 55.8 m , recognize: 28.1 m , Identify: 14.1 m .	
4.	Illuminator	850 nm IR illumination with optional white light. Smart illumination control with effective range up to 60 m .	
5.	HEOP	Open Resources Memory: 150 MB, Smart RAM: 2200 MB, eMMC: 1288 MB Computing Power 2.5 TOPS Open Capability HEOP 2.0 OpendevSDK Deep Learning Structure Caffe,PyTorch,TensorFlow Programming Language C,C++	
6.	Network	Supports full IP networking protocols including TCP/IP, HTTP/HTTPS, RTSP, DHCP, DNS, SNMP, NTP, IPv4/IPv6, PPPoE, QoS, and ONVIF (Profile S/G/T/M). Includes SDK, ISAPI, ISUP, and secure web access protocols.	

7.	Video	Supports H.265+/H.265/H.264+/H.264 compression with: <ul style="list-style-type: none"> • Up to 2688 × 1520 @ 50/60 fps • Sub-stream and third-stream support (H.265/H.264/MJPEG) • Bit rate: 32 Kbps - 8 Mbps (CBR/VBR control) • Features: ROI (4 zones), SVC encoding, target cropping, and multiple encoding profiles 	
8.	Interface	Includes 1× RJ45 Gigabit Ethernet port (10/100/1000 Mbps). Supports CVBS video output (for debugging only). Storage via microSD/microSDHC/microSDXC up to 1 TB (include 256 GB standard surveillance SD cards).	
9.	Events	Supports intelligent detection features including: <ul style="list-style-type: none"> • Motion detection (human & vehicle) • Video tampering alarm • System exception alerts (network failure, IP conflict, illegal login, HDD full/error) • Audio analytics (glass break, scream, gunshot/explosion, crying detection) • Smart video analytics (line crossing, intrusion detection, region entry/exit) 	
10.	Deep Learning	Supports advanced AI analytics including: <ul style="list-style-type: none"> • Face capture & face comparison • People counting • Queue management • Activity analysis • Perimeter protection analytics 	
11.	Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted			

Bullet Camera

S/NO	ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1	Camera	1/1.8" Progressive Scan CMOS sensor with maximum resolution of 2688 × 1520. Supports ultra-low light performance (0.0003 Lux color, 0.0001 Lux B/W, 0 Lux with IR). Features IR cut filter, blue glass module to reduce ghost effects	
2	Lens	Motorized varifocal lens 2.8-12 mm with wide field of view (H: 91.3°-44.2°). Supports auto, semi-auto, and manual focus with P-Iris (F1.0-F1.2) for accurate exposure control.	
3	Dori	2.8 to 12 mm: D (Detect): 140.7 m, O (Observe): 55.8 m, R (Recognize): 28.1 m, I (Identify): 14.1 m	
4	Illuminator	850 nm IR illuminator with supplement white light support. Smart illumination control with effective range up to 60 m.	
5	HEOP	Open Resources Memory: 150 MB, Smart RAM: 2200 MB, eMMC: 1288 MB Computing Power 2.5 TOPS Open Capability HEOP 2.0 OpendevSDK Deep Learning Structure Caffe,PyTorch,TensorFlow Programming Language C,C++	
6	Network	Protocols TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, SRTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, WebSocket, WebSockets API ONVIF (Profile S, Profile G, Profile T, Profile M),ISAPI,SDK,ISUP,OTAP	
7	Video	Supports H.265+/H.265/H.264+/H.264 compression with: <ul style="list-style-type: none"> • Up to 2688 × 1520 @ 50/60 fps • Sub-stream and third-stream support (H.265/H.264/MJPEG) • Bit rate: 32 Kbps - 8 Mbps (CBR/VBR) • Features: ROI (4 zones), SVC encoding, target cropping, and multiple profiles (Baseline/Main/High) 	

8	Interface	Video Output 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging) Ethernet Interface 1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port On-Board Storage Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1 TB include 256gb sd	
9	Events	Supports advanced detection features including: <ul style="list-style-type: none"> • Motion detection (human & vehicle) • Video tampering alarm • System exceptions (network failure, IP conflict, illegal login, HDD full/error) • Audio analytics (glass break, scream, gunshot/explosion, crying detection) • Smart analytics (line crossing, intrusion detection, region entry/exit) 	
10	Deep Learning	Supports AI analytics including: <ul style="list-style-type: none"> • Face capture & face comparison • People counting • Queue management • Activity analysis • Perimeter protection analytics 	
11	Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted			

ANPR Camera			
S/NO	ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1	Camera	1/1.8" Progressive Scan CMOS sensor with max resolution of 2688 × 1520. Supports ultra-low light performance (down to 0.0001 Lux) with IR assistance. Day/Night operation with IR cut filter and wide mechanical adjustment (Pan 0°-355°, Tilt 0°-85°, Rotate 0°-355°).	
2	Lens	Motorized varifocal lens 2.8-12 mm with wide field of view (H: 91.3°-44.2°). Supports auto, semi-auto, and manual focus with P-Iris (F1.0-F1.2) for precise light control.	
3	Dori	2.8 to 12 mm: D (Detect): 140.7 m, O (Observe): 55.8 m, R (Recognize): 28.1 m, I (Identify): 14.1 m	
4	Illuminator	IR Wavelength: 850 nm Supplement Light: IR + White Light Smart Light Control: Supported Range: Up to 60 m	
5	HEOP	Memory: 150 MB Smart RAM: 2200 MB eMMC Storage: 128 GB AI Processing Power: 2.5 TOPS SDK: HEOP 2.0 OpenDev Supported Frameworks: Caffe, PyTorch, TensorFlow Programming: C, C++	
6	Network	Protocols TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, SRTP, RTSP, RTCP, PPPoE, NTP, UpnP, SMTP, SNMP, IGMP, 802.1X, QoS, Ipv4, Ipv6, UDP, Bonjour, WebSocket, WebSockets API ONVIF (Profile S, Profile G, Profile T, Profile M), ISAPI, SDK, ISUP, OTAP	

7	Video	Supports H.265+/H.265/H.264 compression with up to 2688 × 1520 @ 60 fps. Features include ROI encoding (4 zones), SVC, target cropping, and bit rate control (32 Kbps-8 Mbps).	
8	Interface	Video Output 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging) Ethernet Interface 1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port On-Board Storage Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1 TB include 256gb sd	
9	Events	Includes motion detection (human/vehicle), tamper detection, system fault alarms (network loss, HDD failure, IP conflict, illegal login)	
10	Road Traffic and Vehicle Detection	Supports intelligent license plate recognition for vehicles and motorcycles, vehicle attribute detection (type, color, brand, and direction), vehicle/non-vehicle counting, and blacklist/allow list management up to 10,000 records. Supports over 124 countries/regions with ≥98% plate recognition accuracy, ≥99% capture rate, and vehicle speeds up to 120 km/h (front) and 80 km/h (side installation).	
11	Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted			

48 Slot Storage Controller

ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
Network	RTSP, ONVIF, SDK, ISAPI	
External interface	USB 2.0: Front × 2 USB 3.0: Rear × 4 4 × 2.5G Ethernet interface (4 × GbE or 2 × GbE or 1 × GbE or 2 × 10GbE is extendable) RS-232 serial interface × 1 1, 1000M Ethernet interface	
Storage	HDD slot 48 Interface/capacity SATA/4 TB, 6 TB, 8 TB, 10 TB, 12 TB, 16 TB, 20 TB Hot-swapping Supported Enterprise Hard Disk RAID 0, 1, 5, 6, 10, 50, VRAID 2.0, Hot-Spare Populated to meet configuration of 768 TB	
Hardware	Processor 64-bit multi-core processor Cache 16 GB (extendable to 64 GB)	
Storage Management	Disk inspection, alarm and repair video and picture pool management	
Recording mode: video (2 Mbps) + picture	Recording mode: video (2 Mbps) + picture 550-ch (1100Mbps) Video performance	
Device Maintenance	Management mode Web-based GUI, serial interface CLI, centralized management of multiple devices (HCP, HCM)	
Recording Management	Recording mode Video protection Timing recording, event recording Lock key video, ANR, video loss detection and alarm Searching mode Downloading mode Search by time and event download by time, download by file	
Warranty	One (1) Year	
Original detailed and highlighted Brochures MUST be submitted		

Mifare Card		
ITEM	MINIMUM REQUIREMENT	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
M1RF Interface	<ul style="list-style-type: none"> ▪ Non-Contacting data transmission and supplied power (no battery needed) ▪ Working distance: no more than 100mm (depends on the antenna dimension) ▪ Working frequency: 13.56 MHz ▪ High data transmission speed: 106 k bit/s ▪ Data integrity protection: 16-bit CRC, odd-even check, encoding and counting by bit. ▪ Anti-conflict ▪ □ Data transmission and processing time: < 100 ms(including backup and management time) 	
EEPROM	<p>1 k byte (16 zones, 4 sections perzone, 16 bytes persection) User definable reading/writing condition for memory block Long time data storage: 10 years 100,000 writing times</p>	
Security	<p>Triple accreditation Attack protective radio-frequency channel data encryption Two security keys (support multiple security levels) for each section Only one serial No. for one card Transmission security key to protect the accessright of EEPROM during the transmission</p>	
Original detailed and highlighted Brochures MUST be submitted		

Network Switch POE - (48 Ports)			
S/No	Item	Minimum Technical Specifications	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1.	General	Supports AC 100-240V, 50/60Hz power input, rackmount installation with mounting ears, and maximum power consumption of 53W.	
2.	Network Parameters	48 × Gigabit RJ45 ports and 6 × 10G SFP fiber ports, with 32K MAC address table, 216Gbps switching capacity, 160.71Mpps packet forwarding rate, and 2.0Mbits internal cache for high-performance network traffic handling.	
3.	Software Function	Supports advanced Layer 2 and Layer 3 switching features including LLDP, MAC management, port mirroring, link aggregation, STP/RSTP/MSTP, VLAN management (up to 4K VLANs), static and dynamic routing, IPv4/IPv6 routing, multicast control, QoS traffic prioritization, DHCP services, and Layer 2/3/4 IPv4 & IPv6 ACL security policies.	
4.	Security	Supports secure user management with password protection, SSH encrypted login, IEEE 802.1x, RADIUS, AAA, and SNMPv3. Includes IP/MAC/PORT binding, MAC address control, broadcast suppression, and protection against ARP, multicast, broadcast, unicast, and protocol-based attacks.	
5.	System Management	Command line configuration via console/AUX Modem/Telnet/SSH Uploading and downloading of FTP, TFTP, and Xmodem, and SFTP files SNMP V1/V2c/V3 sFlow NQA NTP clock System operating logs	
6.	HPP	Supports one-click activation and remote management including port rate monitoring, bandwidth utilization, topology display, alarm monitoring, remote port/device restart, and remote firmware upgrade.	
7.	Warranty	1 year	
Original detailed and highlighted Brochures MUST be submitted			

2000 VA UPS Rack-mount UPS (2U or 3U)

S/No	Item	Minimum Technical Specifications	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1.	Power Capacity	Rated Capacity: 2000 VA / 1200 W	
2.	Input Specifications	<ul style="list-style-type: none"> • Input Voltage Range: 140 VAC - 300 VAC • Input Frequency: 50/60 Hz (auto-adaptive) • Plug Type: UK Type G 	
3.	Output Specifications	<ul style="list-style-type: none"> • Output Voltage: 230 VAC ±10% • Output Frequency: 50/60 Hz ±0.5 Hz (auto-adaptive) • Transfer Time: ≤ 10 ms • Waveform: Simulated sine wave • Outlet Type: Universal sockets • Number of Outlets: 4 	
4.	Battery System	<ul style="list-style-type: none"> • Battery Type: 12V / 9Ah × 2 (sealed lead-acid) • Backup Time: 15-20 minutes at 300W load • Recharge Time: 6-8 hours to 90% capacity 	
5.	Protection Features	Provides full electrical protection including: <ul style="list-style-type: none"> • Surge protection • Overload protection • Discharge protection • Short circuit protection 	
6.	Interface & Communication	<ul style="list-style-type: none"> • USB communication port supported • LCD display showing: <ul style="list-style-type: none"> • AC mode / Battery mode • Load level and battery level • Input/output voltage • Overload and fault status • Battery low warning 	
7.	Alarm System	<ul style="list-style-type: none"> • Battery mode: beep every 10 seconds • Low battery: beep every 1 second • Overload: beep every 0.5 seconds • Fault condition: continuous alarm 	

8.	General Specifications	<ul style="list-style-type: none"> • Operating Temperature: 0 °C to 40 °C • Operating Humidity: 0% - 90% (non-condensing) • Dimensions: 124 × 382.42 × 225.1 mm • Weight: Approx. 10.5 kg 	
9.		•	
10.	Warranty	1 Year	
Original detailed and highlighted Brochures MUST be submitted			

Network Switch POE- (24 Ports)

S/No	Item	Minimum Technical Specifications	Bidders' response to the bid should clearly explain how the proposed solution meets the specifications in this tender (Attach the relevant and highlighted brochure)
1.	General	Power Supply 100 to 240 V AC, 50/60 Hz, Max. 6.3 A Installation Mode Rack (equipped with mounting ears) Max. Power Consumption 400 W Power Consumption in Idle 30 W Surge Protection 6 kV	
2.	Network Parameters	24 × Gigabit PoE port, 2 × Gigabit fiber optical port MAC Address Table 8 K Switching Capacity 56 Gbps Packet Forwarding Rate 41.66 Mpps Internal Cache 4.1 Mbits	
3.	Software Function	VLAN is used for network scale planning and network health improvement. Support 802.1Q. Configurable VLAN ID from 1-4094. Support Trunk, Access port mode. Support Max. 4094 VLAN. HPP Support one-click activation and remote management via Hik-Partner Pro. Functions supported: 1. Display the port rate. 2. Display the port bandwidth utilization rate. 3. Display topology information. 4. Display the alarm status. 5. Restart ports and devices. 6. Remotely upgrade the device.	
4.	Security	Supports secure user management with password protection, SSH encrypted login, IEEE 802.1x, RADIUS, AAA, and SNMPv3. Includes IP/MAC/PORT binding, MAC address control, broadcast suppression, and	

		protection against ARP, multicast, broadcast, unicast, and protocol-based attacks.	
5.	System Management	Command line configuration via console/AUX Modem/Telnet/SSH Uploading and downloading of FTP, TFTP, and Xmodem, and SFTP files SNMP V1/V2c/V3 sFlow NQA NTP clock System operating logs	
6.	Warranty	1 year	
Original detailed and highlighted Brochures MUST be submitted			

