

6.2.2.50 GTP of IP-KVM Switch

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		Should be Raritan/Vertiv/Aten/Dell/APC or equivalent	
2	Model		To be mentioned by the bidder	
3	Country of Origin		To be mentioned by the bidder	
4	Country of Manufacturer		To be mentioned by the bidder	
5	Features		Should have the following features: • Device should IP enable and support IPv6 • Should support FIPS 140-2 level 1 security standards • Should have Advanced FPGA graphics processor with HD resolutions up to 1920 x 1200 • Should have 2x faster virtual media transmission speeds • Should be able to Simultaneously share one local console and four independent connections to servers	
6	Hardware		Should have the following features: • Should support Blade server • should Support Windows, Mac, Sun, Linux and VT100 based serial devices • Should be Audio enabled Device should support Min. 1920x1200 @60Hz with 24-bit color depth at the switch's local console and on remote displays	
7	Advanced Security		System Should have the following features: • Remote authentication support: RADIUS, LDAP, LDAPS and Microsoft Active Directory • Supports TLS 1.2 encryption and RSA 2048-bit certificates to secure browser logins • Flexible encryption design allows users to choose any combination of DES, 3DES, AES, RC4, or Random for independent KB/Mouse, video, and virtual media data encryption • Supports IP/MAC address filtering • Configurable user and group permissions for server access and control	
8	Management		System Should have the following features: • System should support Min. 64 user accounts and Min. 32 concurrent logins • Adapter ID Function – stores port information, allowing administrators to relocate servers to different ports without having to re-configure adapters or switches • Port Share Mode – allows multiple users to gain access to a server simultaneously • Should be capable to integrate with Central	

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
			Management and Video Session Recording server	
9	Accessibility		System Should have the following features: • Monitor all ports in a grid display of all desktops at both the local and remote screen • Browser-based UI in pure Web technology allows administrators to perform administrative tasks without pre-installed Java software • Launch multiple virtual remote desktop sessions to control multiple servers at the same time • Full screen or scalable virtual remote desktop window • Keyboard/Mouse Broadcast – keyboard and mouse signals can be duplicated across all servers at once • Local console monitor's EDID information stored on the KVM Adapter Cables for display resolution optimization	
10	Virtual Media		System Should have the following features: • Virtual media enables applications, OS patching, software installations and diagnostic testing • Supports DVD/CD drives, USB mass storage devices, hard drives and ISO images	
11	Virtual Remote Desktop		The system Should have the following features: • Automatically synchronizes the local and remote mouse movements • Message Board for communication among remote users • BIOS-level access for troubleshooting	
12	Console Connections		Minimum Local 1 and also have 4 Remote user over separate four buses	
13	Port Selection		Should have Push buttons, Hotkeys, GUI	
14	Console Ports		Should have Min. 2 x USB and 1 x DVI-I port	
15	KVM Port Type		Device must have Min. 24 x RJ-45 port ports in 1U housing and should support Min. 384 computer/servers via cascaded KVM Switches if required	
16	Interface		Minimum Min. 3 x USB, 2 x Audio, 1 x Mini-USB Console port,	
27	LAN Ports		Should have Min. 2 x Network Interface for redundant LAN or dual IP operation	
18	Power		Device must have Redundant power supply with IEC 60320/C14 interface	
19	Scan Interval		Minimum in 1 - 255 Sec	
20	Console Panel Features		Console Selection: Should be Hotkey KVM Ports: Console Panel should have Min. 1x HDMI, 1x DVI-D, 1x HDB-15, 1x USB Type B and 1x 3.5mm Audio Jack ports External Console Ports: Console Panel should have Min. 1x HDMI, 1x DVI-D, 1x HDB-15, 2x USB Type A and 1x 3.5mm Audio Jack Should be rail type display, Min. 17" TFT-LCD Display with Resolution 1920x1080 @60Hz and Viewing Angle: Should be Min. 178° (H), 178° (V) Support Color: should be Min. 16.77M colors Contrast Ratio: should be 1000:1	

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			Luminance: 350 cd/m ²	
			Device should have an integrated keyboard and Mouse	
21	KVM Adapter		Bidder should provide same No. of the KVM adapter as KVM Switch port.	
			KVM Link over RJ-45 interface and Server/Computer should be connected over 1xUSB Type A, 1xHDB-15 interface	
22	Installation		Bidder should be responsible for installation, Testing and commissioning with required accessories	
23	Documentation		The supplier must submit the manufacturer Authorization certificate directly from OEM	
24	Warranty		Bidder should provide three (03) years warranty	

[The Tenderer should complete all the columns as required]

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6.2.2.51 GTP of DCIM, BMS and EMS (Environment Monitoring System)

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Ems Controller		EMS Enterprise Server	
2	Brand		NTI or equivalent	
3	Brand Origin		To be mentioned by the bidder	
4	Part Number		E-16D	
5	Features		The Environment Monitoring System monitors critical environmental conditions, such as temperature, humidity liquid presence, and vibration. Management (SNMP), and SMS messages (via external GSM modem).	
6	RJ45 Sensor Ports		Minimum Sixteen RJ45 modular jacks for connecting temperature, humidity, temperature/humidity, liquid detection, smoke detection, glass break, vibration and motion sensors.	
7	Device Internal Sensors		3	
8	Digital Inputs		Eight screw terminals pairs for connecting dry contact devices. Input voltage: 0VDC to +25VDC. Provides +12VDC, 50mA for terminals 1-7, and +12VDC, 350mA for terminal 8 only. Fuse protection.	
9	Digital Outputs		Four screw terminals pairs. Potential-free relay switch contacts. Normally open / normally closed connection points. Switching load: 0.5A at 100VAC, 1A at 30VDC, 0.5A at 48VDC.	
10	Beacon Port		One screw terminal pair. Provides +12VDC, 180 mA to supply an alarm beacon. Fuse protection	
11	Siren Port		One screw terminal pair. Provides +12VDC, 180 mA to supply a siren. Fuse protection	
12	AUX Power		One screw terminal pair. Provides 12VDC, 150mA.	
13	USB Device Ports		Four female USB Type A connectors for connecting USB modem or for downloading log data to USB flash drive. Two USB ports on front panel and 2 on back panel.	
14	USB Console Port		One female USB Type B connector for connecting a PC for serial terminal access.	
15	RS232 (DCS) Port		One female RJ45 serial port for terminal access.	
16	Ethernet Port		One 10/100 Base-T Ethernet port with RJ45 Ethernet connector. Supports full- and half-duplex.	
27	RS232 AUX Port		One RJ45 port for connecting a serial GSM modem or a remote serially-controlled device.	
18	Cascade In/Out Ports		Two RJ45 jacks. 5 systems can be used in a cascaded configuration via RS485 to increase the number of sensor ports (1 master, 4 slaves). Each slave unit needs its own unique RS485 address value that can range from 1-255. Use CAT5/5e/6 patch cables with RJ45 connectors wired straight through Up to 4,000 feet between the master unit and the slave unit. Uses a single Web interface for all systems connected. Up to 3,000 units via optional management software (not included)	

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Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
19	Temperature		Applications from 32 to 104°F (0 to 40°C)	
20	Humidity		Applications from 20 to 80% relative humidity at temperatures between 32 to 104°F (0 to 40°C)	
21	Power		Measures main voltage: 0 to 255 VAC	
22			Measures battery voltage: 0 to 20 VDC	
23	Alerts		Email	
24	8 methods		Web Interface	
25			SNMP network management V1/V2c/V3	
26			Front Panel LEDs for internal sensors, external sensors, backup battery, data log, power, AUX power	
27			SMS Messages Via external USB 3G modem (sim not included)	
28			Voice Phone Calls Via automatic voice dialer system (not included)	
29			Alarm Beacon	
30			Siren	
31	Smart Alerts		Up to 50 sensor conditions (events) can be configured to trigger alerts by themselves	
32			Up to 20 Smart Alerts can be configured to use different event combinations to send alert messages	
33			Alarm Silence / Test Button	
34	Control Methods		Web Interface	
35	6 methods		Telnet	
36			SSH	
37			Network Operation (SNMP) V1/V2c/V3	
38			RS232 (via female RJ45 RS232 connector & female USB Type B connector)	
39	Monitor (Ping) IP Devices		Up to 64 devices	
40	Protocols		HTTP/HTTPS, SNMP V1/V2c/V3, SMTP, TCP/IP, Syslog, Sntp, DHCP, SSHv2, SSLv3, LDAPv3,	
41			AES 256-bit, 3DES, Blowfish, RSA, EDH-RSA, Arcfour, IPV6, WAP 2.0	
42	Other Features		Flash Upgradeable	
43			Restore Defaults Button	
44			System Reset Button	
45	Operating Temperature		32 to 104°F (0 to 40°C)	
46	Power		110 or 230 VAC at 50 or 60 Hz via IEC connector	
47	Backup battery		provides backup power for one hour	
48	Dimensions WxDxH (in)		Standard 19" Rackmountable	
49	Regulatory Approvals		CE, RoHS	
50	Temperature and Humidity Sensor		Temperature and Humidity Sensor. Measures Temperature Applications from -4 to 185°F (-20 to 85°C), Measures Humidity 0 to 90% relative humidity. ±5%. Connection Type RJ45, Cable Type and Max Length Cat5/5e/6 cable up to 1000ft, Regulatory Approvals CE, RoHS. Brand: NTI, Part Number: E-STHSB	

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
51	Door Contact Sensor		Monitors access with a magnetic bridge sensor, which responds to any magnetic material (no special inserts necessary). Can also be used for monitoring side wall and covers. normally closed circuit connection. Connect to digital input or RJ45 sensor port. Wide actuating gap, approximately 1.2". Brand: NTI, Part Number: E-M-DCS3	
52	Water Detector		Liquid Detection Sensor For detecting water presence and warning of flooding, Plenum Rope-Style, Detects any conductive liquid or moisture. 10-30 feet water detection cable . Features a non-conductive polymer mesh that prevents false alarms caused by dirt/dust buildup, metal contact, or pressure on the rope. Puddle 0.6" (15 mm) diameter. Detects liquid depth „ >0.1" (2.5 mm). Plenum rating CL2P (UL). Brand: NTI, Part Number: E-LDx-y	
53	GSM Modem		GSM Modem for the EMS Controller. Sends SMS text messages to a pager or cell phone when a sensor goes out of range of a configurable threshold. SIM card supporting SMS messaging required (not included). Customer need to provide a valid active compatible sim card with sufficient sms balance. Supports any GSM operator in Bangladesh in any mode 2G/3G/4G. Brand: Supplied by NTI	
54	Accessories		Cat6 Cable, Clamp, Connector, Power, Conduit, etc.	
55	Installation		Installation, Testing and commissioning	

[The Tenderer should complete all the columns as required]

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6.2.2.52 GTP of Fire Detection and Suppression System

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Suppression Agent NAFS1230 (FK5-1-12)		Suppression Agent: NAFS1230 (FK5-1-12), UL listed gaseous agent. zero ozone depletion potential (ODP), Have a minimal life span in atmosphere, with atmospheric life time of less than 5 days, The agent discharge time ± 10 seconds and not less than 5 seconds.	
2	Cylinder for NAFS1230		Cylinder: Cylinder Assembly UL Listed The Cylinder equipped with all accessories (Cylinder Assembly, Cylinder Valve, Cylinder Top Plugs, Cylinder Valve Controls, Electric Solenoid, Electric Linear Actuator, Manual Actuator, Cylinder Straps, Discharge Hose, Pressure Gauge, etc as required basis), Brand: Safety Hi-Tech, Italy or equivalent reputed make.	
3	a) For Server Room		148kg Gas in 2 nos 100 Liter Cylinder. Final Gas quantity and Cylinder size will be provided as per hydraulic calculation	
4	b) For Power Room		60kg Gas in 1 nos 67 Liter Cylinder. Final Gas quantity and Cylinder size will be provided as per hydraulic calculation	
5	Fire Extinguishing Panel		Supply, Installation, Testing and Commissioning of 4 zone auto Fire Alarm Control Panel (FACP) with 2 extinguishing area. The FACP have its own battery backup. Brand: Program or equivalent. Country of Origin: To be mentioned by the bidder	
6	Smoke Detector		Photo Electric Smoke Detector, Brand: Apollo or equivalent, Origin: To be mentioned by the bidder	
7	Heat Detector		Heat Detector, Brand: Apollo or equivalent, Origin: To be mentioned by the bidder	
8	Alarm Bell		24V Red Polarized fire bell with highly efficient motorized movement	
9	Rotating Light		Rotating Light.	
10	Manual release switch/Call Point		Manual release switch/Call Point	
11	Exit sign		Exit sign	
12	Caution Sign,		Caution Sign	
13	Gas Discharge Sign		Gas Discharge Warning Sign Outside Room	
14	Discharge Nozzles		Discharge nozzles are made of aluminum, brass or stainless steel with female/Male pipe threads.	
15	Manual Handheld extinguisher		Manual Fire Extinguisher CO2, 3-5 KG	
16	MS Seamless pipes		MS Seamless pipes as per ASTM A 106 Gr. B, Schedule 40 pipe 1/2"-1" Dia, MS Fittings (Reducer+ Clamping+ Elbow+ Hanger)	
27	ELECTRICAL FITTINGS		Fire resistance cable, PVC Pipe conduit with fittings, Conduit and cable laying per detector	
18	Installation		Installation, Detection Testing & commissioning	

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6.2.2.53 GTP of Vesda System

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Vesda System		VESDA Smoke Detection System	
2	Brand		Xtralis (by Honeywell) or equivalent	
3	Model Number		To be mentioned by the bidder	
4	Origin of Brand		To be mentioned by the bidder	
5	Features		Out-of-the-Box Installation & Commissioning	
6			Ultrasonic Airflow Sensing	
7			Laser-Based Absolute Smoke Detection	
8			Pre-engineered pipe network designs	
9			Programmable Alarm Thresholds	
10			Clean air barrier optics protection	
11			Instant Recognition Display	
12			Instant Fault Finder	
13			AutoLearn Smoke	
14			AutoLearn Flow	
15			Field Service Access Door	
16			Multiple Event Logging in separate logs	
27	Event log		up to 18000 events	
18	Configuration capability		Offline/Online	
19	Coverage		Up to 250 m2 (2500 sq. ft.)	
20	Approval		LPCB (Loss Prevention Certification Board), UK	
21			FM (Factory Mutual), US	
22			UL (Underwriters Laboratories Inc.), US	
23			ULC (Underwriters Laboratories Canada), Canada	
24			Vds (Verband der Sachversicherer e.V), Germany	
25	Input Voltage		24V DC Nominal (18-30 V DC)	
26	Input Current		@ 24 VDC: 410 mA nominal, 490 mA in alarm	
27	IP Rating		IP30	
28	Mounting		Upright, inverted or horizontal	
29	Relay Outputs		3 changeover relays (Fire 1, Action, Fault), Contacts rated 2A @ 30 VDC (max). NO/NC Contacts	
30	General Purpose Input (GPI) interface		Reset, Disable, Standby, Alarm set 1, Alarm set 2 and External Input functions.	
31	Alarm Threshold Setting Range			
32	Alert, Action		0.025 - 2.00% obs/m (0.008 - 0.625% obs/ft)	
33	Fire 1, Fire 2		0.025 - 20.00% obs/m (0.008 - 6.25% obs/ft)	
34	Individual Alarm Delays		0 - 60 seconds	
35	Two Alarm Threshold Settings		Either time or GPI based	

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Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
36	Display		4 Alarm State Indicators	
37			Smoke Level Indicator	
38			Reset, Disable and Test Controls	
39			Fault and Disabled Indicators	
40			Instant Fault Finder	
41			Smoke and Flow AutoLearn Controls	
42	Event Log		Up to 18000 events, time and date stamped in separate, non-volatile, logs for: Smoke Level, Flow Level, Detector Status and Faults	
43	AutoLearn Smoke & Flow		Automatically set acceptable alarm thresholds for both smoke and flow levels	
44			Minimum 15 minutes, maximum 15 days (default 14 days)	
45			During AutoLearn thresholds are NOT changed from pre-set values	
46	Sampling Pipe		Sampling Pipe and All Accessories	

[The Tenderer should complete all the columns as required]

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6.2.2.54 GTP of Rodent Repellent System

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Master Controller		Supply and installation of Master Console, UL Certified for Server and Power Room	
2	Brand		Maser or equivalent	
3	Model		To be mentioned by the bidder	
4	Country of Origin		To be mentioned by the bidder	
5	Transducer Supports		Min 20	
6	Operating Frequency		20-60 KHz	
7	Frequency Shifting		Auto	
8	Sound Output		80 to 110 dB at 1 Meter	
9	Power output		800 mW per transducer	
10	Power consumption		5 W per transducer	
11	Power Supply		230 V AC 50 Hz	
12	Mounting		Wall / Table Mounting	
13	Transducer		Supply and installation of Transducer for Rodent System, Coverage-Open are 300 SFT, Room area 150 SFT, Occupied Area not more than 3 Cu. Inch	
14	Accessories		Connection wire, conduit, clamp, etc	
15	Installation		Installation, Testing & Commissioning	

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6.2.2.55 GTP of 4MP Bullet Camera

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		To be mentioned by the bidder	
2	Model		To be mentioned by the bidder	
3	Country of Origin		To be mentioned by the bidder	
4	Country of Manufacture		To be mentioned by the bidder	
5	Features		Should provide min. 4 MP resolution Should support H.265+ compression, Human, Line crossing and intrusion detection Should provide 24 hours colorful image Should support 120 dB WDR technology for clear imaging against strong back light Protection level should be IP67	
6	Image Sensor		Should have min. 1/3" Progressive Scan CMOS	
7	Resolution		Should be min. 2560 × 1440	
8	Illumination		Should be able to capture color images in 0.001 Lux using F1.0 lens and AGC, 0 Lux with light	
9	Shutter Time		Should be 1/3 s to 1/100,000 s or better	
10	Lens		Should be Fixed focal lens 4 mm with fixed type Iris	
11	Aperture		Should be min. F1.0	
12	Field of view		Should be 76° × 41° × 89° (H × V × D) or better	
13	DORI		System must come with maximum detection range 82 m, observation range 32 m, recognition range 16 m, and identification range 8 m or better.	
14	Supplement Light Type and Range		Should be White Light with min. range of 50M	
15	Compression type		Should support H.265+, H.264+, MJPEG compressions with triple stream as video compression. Should support G.711ulaw, G.711alaw, G.722.1, G.726, MP2L2, PCM, AAC-LC as audio compression.	
16	Video Stream		Main stream should support min. 2560 × 1440 resolution for both 50Hz @20 and 60Hz @20fps. Sub Stream should support min. 1280 × 720 resolution for both 50Hz @25fps and 60Hz @30fps. Third Stream should support min. 640 × 360 resolution for both 50Hz and 60Hz.	
17	Video Bit Rate		Should be min. 32 Kbps to 8 Mbps with CBR, VBR Bit Rate Control	
18	Region of Interest		Should have min. one fixed region for main stream and sub-stream	
19	Audio Type		Should support Mono sound with Environment Noise Filtering	
20	Simultaneous Live View		Should be min. 6 channels	
21	Security		Proposed model should support Password protection, HTTPS encryption, EAP-MD5 Authentication, WSSE and digest authentication, RTP/RTSP over HTTPS, Security	

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			audit log, TLS 1.2, TLS 1.3, MAC authentication.	
22	Protocols		System must support a wide range of protocols, including ICMP, DHCP, DNS, TCP/IP, HTTP, RTP, HTTPS, DDNS, UPnP, RTSP, RTCP, NTP, IGMP, IPv4 & IPv6, UDP, QoS, FTP, SMTP and 802.1X	
23	User		Should be min. 32 user	
24	Application programming interface		Should support Profile S, Profile T, Profile G over ONVIF, ISAPI, SDK	
25	Event		Motion detection (human and vehicle), video tampering alarm, exception, Line crossing & intrusion detection	
26	Linkage		Should have the capability of Uploading to FTP, memory card, send email, notify surveillance center, trigger capture, trigger recording	
27	Interface		System should have min. Microphone, Reset Key and RJ45 interface.	
28	Power		Must support PoE IEEE 802.3af & should not be more than 6.5 Watt.	
29	Material		Camera body must be metal	
30	Temperature		Should support -30° C to 60° C	
31	License		Bidder should provide Video Surveillance Channel Video Management such real-time viewing, Recording, Video search with base surveillance license	
32	Certifications		Must have the following approvals FCC, CB, CE-LVD, BIS, CE-RoHS, IP67 and bidder should submit the evidence along with the proposal	
33	Installation		Bidder should be responsible for installation, Testing and commissioning with required mounting Kit. Installation work should be completed through OEM certified engineer of the proposed brand. Evidence should be submitted along with proposal.	
34	Documentation		Bidder should provide datasheet and relevant documents as reference of their compliance. Bidder must submit manufacturer authorization letter direct from OEM.	
35	Warranty		Bidder should provide three (03) years full warranty	

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