

**SCHEDULE OF REQUIREMENT/ BILL OF QUANTITIES (BOQ) OF****“PROCUREMENT OF IT EQUIPMENT & ACCESSORIES &  
OTHER MISC. ITEMS ON FRAMEWORK CONTRACT BASIS  
(SPPRA Rule 15(B))”****Tender Ref. #: PROC/SMBBIT/(IT-01)/2023-24”**

<b>Network and CCTV related Items:</b>									
<b>S.#</b>	<b>Item Description</b>	<b>Specification</b>	<b>Item Required For</b>	<b>Tentative Qty.</b>	<b>U.O.M</b>	<b>Make, Model &amp; Warranty</b>	<b>Quoted Spec.</b>	<b>Unit Price (Inclusive of all applicable taxes)</b>	<b>Total Amount</b>
1	Network Switch	Network Switch 48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, PoE+, 370W POE AC 110/220V, Memory 512Mb, Flash, Flash 240Mb,	For Backup switches on the floors and New Cameras Installation	5	Pcs.				
2	Core Switch	Core Switch 24-Port 10G SFP+ Stackable Managed Switch Jumbo frames up to 9000 bytes X ARM 1.3GHz processor 512MB RAM 256MB Flash Memory Ports/Connectors: I/O (24) 10GbE LAN SFP+, (4) 10GbE SFP+, (1) RJ-45 console, (1) USB Type-A, (1) GbE LAN management, (1) Power in Power 100 - 240V 47 - 63 Hz, internal, universal Networking Protocol 10 Gigabit Ethernet, Gigabit Ethernet	For Emergency Backup Need If Running one will be Failed down the all-network system will shut down	1	Pcs.				

3	Camera 4.0 MP	Fixed Bullet Network Camera High quality imaging with 4 MP resolution Efficient H.265+ compression technology Clear imaging even with strong back lighting due to 120 dB WDR Day/Night Switch Auto PoE: (802.3af, 36 V to 57 V), 0.2 A to 0.15 A, max. 6.5 W	For Camera Installation Request	20	Pcs.				
4	NVR 32	32 channel 4K NVR 4 HDDs for continuous video recording Up to 12 MP resolution HDMI 1 Output 4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz HDMI 2 Output VGA Output Audio Output 1-ch, RCA (Linear, 1 KΩ) Incoming bandwidth 256 Mbps Outgoing bandwidth 256 Mbps TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS 2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface Front panel: 2 × USB 2.0; Rear panel: 1 × USB 3.0 Power 100 to 240 VAC, 50 to 60 Hz	For Save Recording Camera And Reporting CCTV	2	Pcs.				
5	CAT6 Cable	Category 6 UTP PVC Cables Copper cable 4-Pair Category 305m (1,000ft) 24AWG	For Cameras Installation and Network Installation	10	Pcs.				

6	HDD 8TB	8TB Surveillance Hard Drive 3.5" SATA For Video Surveillance System, Network Video Recorder Device Supported - 256 MB Buffer Hardware Interface SATA 6.0 Built for 24/7 surveillance All Frame technology for better performance	For Camera Recording Backup (surveillance grade Hard Drive)	5	Pcs.				
7	M6 cage Nuts & bolt washer	M6 cage Nuts & bolt washer	For Installation Switches And ODF	100	Pcs.				
8	Sliding Rack Mount Shelves	Sliding Rack Mount Shelves 20" depth 100 lb. weight capacity Adjustable mounting depth 17.72" maximum slide extension 19" EIA compliant	For Installation Switches	20	Pcs.				
9	4U Server Rack outdoor	9U Rack, 600mm x 500mm, Double Section, Front Tinted Glass Door with Lock, 1 Fan Option Size (H10.5 x D20 x W23.5 Inches) (Fan Included)	For Parking Switch Need	1	Pcs.				
10	Crimping Tool	RJ45 Crimping Tool	For RJ45 Connector Punching	3	Pcs.				
11	RJ45 Cat6 Connector	RJ45 Cat6 Connector (Each Box Have 100 Pcs.)	For Cat6 Wire Installation Need	15	Box				
12	Telephone	Telephone Set Non-LED	For Request of New Telephone Set and Replace faulty phones	20	Pcs.				

13	IP Phone	IP Phone Supports 8 administrable feature buttons Each button includes dual LED's (red, green) providing explicit status for the user high quality, 2-way speakerphone 100 number capacity contacts and call log the 3 lines by 24-character display is backlit	For Request Of New Telephone IP phone Sets and Replace faulty ip phones	5	Pcs.				
14	Ipook Cable Tester PK65H	Ipook Cable Tester PK65H	For Network Cable Testing Need	3	Pcs.				
15	Key Stone Jack IO Connector	Key Stone Jack IO Connector with face plate	replace faulty IO connectors with new one	50	Pcs.				
16	Cable Tie	Cable Tie (10inch)	For Manage Cabling	15	Pkt				
17	Cable Tie	Cable Tie (6inch)	For Manage Cabling	10	Pkt				
18	Tool Set	Screw Driver & Hardware Tool Set	For Working Need (Cutter, Plas, Nose Plier, Screw Driver Set)	2	Pcs.				
19	Star Tool Kit	Star Tool Kit	Star Tool Kit Need for Services Cameras and Switch	2	Pcs.				
20	Network Switch Unmanaged	8 Port Fast Ethernet Switch 8 × gigabit PoE ports, 2 × gigabit Uplink	For offices' Network Connection Use	3	Pcs.				
21	LHM 0606/10 Ceiling Loudspeaker	Loud speaker for PA system	speakers for public announcement system using in code blue for 12th and 7th floor with complete installation including wire & Backup speakers for PA system	15	Pcs.				

22	Bosch LBB 1956/00 Plena Voice Alarm Call Station metal base design	Mic for PA system zonal based	For announcement in building for code blue medical emergency	1	Pcs.				
23	LBB9081/00 Bosch Dynamic Emergency Microphone	Mic for PA emergency	For announcement in building for code blue medical emergency	1	Pcs.				
24	Multimeter/volt meter	Multimeter/volt meter	For repairing of switches and other network equipment	1	Pcs.				
25	Huawei Access Point Controller	Huawei Access Point Controller	Required for Security and Access point Control as we do not have our own.	1	Pcs.				
26	SFP-1G	SFP Module Multi Mode 1G compatible with Cisco switch	Floor Wise Connection Need	15	Pcs.				
27	UTP Patch Cords 3m - CAT6	UTP Patch Cords 5m	For switch to switch and IO to PCs Connections	50	Pcs.				

## Servers related Items:

S.#	Item Description	Specification	Preferred Brand	Req. Qty	UOM	Make, Model & Warranty	Quoted Spec.	Unit Price (Inclusive of all applicable taxes)	Total Amount
1	<b>Rackmount KVM Console</b>	<p>8 Port Rackmount KVM Console with Cables Integrated</p> <p>KVM Switch with 19" LCD Monitor</p> <p>Fully Featured 1U LCD KVM Drawer</p> <p>OSD KVM</p> <p>USB + VGA</p> <p>Support</p> <p>Rackmount LCD KVM Switch 8 Port</p> <p>VGA , is the latest version to manage up to 8 computers by 1 user. 15.6" LCD Monitor.</p> <p>Resolution: 1920*1080 OSD menu, USB + VGA</p> <p>Support Hot-key or push button</p> <p>Switching. Daisy chain up to 64 computers and provides 2-level password security (administrator and user), up to 8 authorized users and an administrator view and control the computers</p>	RKCONS1 908K or Equivalent	1	Pcs.				

2	<b>SERVER Required</b>	<p>CHASSIS: 8 x 2.5" Chassis, 8 SAS/SATA bays, Double-wide accelerators capable, 2 CPU Configuration</p> <p>PROCESSOR: 2 x Intel® Xeon® Gold 5222 3.8G, 4C/8T, 10.4GT/s, 16.5M Cache, Turbo, HT (105W) DDR4-2933</p> <p>RAM: 6 x 64GB RDIMM, 3200MT/s, Dual Rank, 16Gb</p> <p>HDD: 8 x 2.4TB 10K RPM SAS ISE 12Gbps 512e 2.5in Hot-plug Hard Drive</p> <p>RAID: C7, Un-configured RAID for HDDs or SSDs (Mixed Drive Types Allowed)</p> <p>RAID CONTROLLER: PERC H330 RAID Controller, Adapter, Low Profile</p> <p>NETWORK: Broadcom 57412 Dual Port 10GbE SFP+ &amp; 5720 Dual Port 1GbE BASE-T rNDC</p> <p>POWER SUPPLY: 1+1 Power Supply, Redundant Configuration, 1600W, 250 Volt Power Cord Required for Use</p> <p>POWER CORD: NEMA 6-15P to C13 Wall Plug, 250 Volt, 13 AMP, 6 Feet (1.8m), Power Cord, North America</p> <p>RACK RAIL: 2U Combo Drop-In/Stab-In Rail that supports 4U chassis</p> <p>ACCESSORIES: 8X DVD-ROM, USB, External, Open Manage DVD Kit, PowerEdge R940xa</p>	Dell/HP or equivalent	1	Pcs.				
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3	<b>SERVER Required</b>	<p><b>NAS SERVER</b>  Chassis: 4U / 2 x CPU  TDP 205W / 60 x 3.5"  + 4 x 2.5" 7mm  (SATA/SAS)(HDD/SS  D) / 16 x DDR4  3200MHz / 2 x  SuperDom / 2 x M.2  SSD NVMe  Processor: 2 X 12  Core Intel® Xeon®  Scalable Processor  4310 2.10GHZ 18MB  L3 Cache TDP 120W -  Silver  RAM: 8 X 128GB  PC4-25600 DDR4-  3200 Registered ECC  Memory Module  HARD DRIVES TOP  +  REAR STORAGE  HOT SWAP: 15 X  3.84TB SATA 6Gb/s  Read 550 MB/s Write  510 MB/s  Server/Enterprise 5.0  DWPD, 2.5" SSD  7mm, Intel D3-S4620  Controller Card:  Storage 3616  controller for  serviceable 60/90 bay  systems. This has two  3616 controller chips,  PCI switch, 2x NVMe  M.2 (Form factors:  2280 and 22110),  RoHS (One per Node)  Ethernet: 10GbE Quad  Port (4 x RJ45) PCIe 3  x8 X710-T4 Intel NIC  SFP: 10GbE Dual  Port (2 x SFP+) PCIe  3 x8 ConnectX-3 EN  Mellanox MCX312A-  XCBT NIC  Power Supply: 2 X  Power Supplies 80  Plus Platinum with  PMBus 2000W ( 100-  120 Vac, 12.5-9.5A /  200-240 Vac, 10-9.5A  ) ( PWS-2K05A-1R)  Power Cord: Power  cord / cords included  Warranty: 3 or 5 Year  NBD Warranty Parts  Replacement</p>	Dell/HPE or equivalent	1	Pcs.				
4	<b>HDD SAS 3.5" (2TB)</b>	2TB 3.5" SAS Server HDD	any	5	Pcs.				
5	<b>HDD SAS 3.5" (4TB)</b>	4TB 3.5" SAS Server HDD	any	5	Pcs.				
6	<b>HDD SAS 2.5" (2TB)</b>	2TB 2.5" SAS Server HDD	any	5	Pcs.				
7	<b>HDD SAS 2.5" (4TB)</b>	4TB 2.5" SAS Server HDD	any	5	Pcs.				



8	Server ECC RAM	DDR3 ECC 32GB KIT	Kingston/Corsair or Equivalent	5	Pcs.				
9	Server ECC RAM	DDR4 ECC 32GB KIT	Kingston/Corsair or Equivalent	5	Pcs.				
10	Server Power Supply	Ref# PS-2751-13D-LF DP/N0W8R3C Module L750E-S0	Dell PowerEdge 730	2	Pcs.				
11	Server Power Supply	Module D750E-S1 DP/N09PXC	Dell PowerEdge 720	3	Pcs.				
12	Server Power Supply	Module EPW750-12A 750W	Huawei RH2288H V3	1	Pcs.				
13	Server Power Supply	Module EP2461-7H 02130957 460W	Huawei RH2288H V2	1	Pcs.				
14	Server Power Supply	Module A570P-01 DP/N0T327N 570W	Dell PowerEdge 710	1	Pcs.				

#### Hardware related items

1	Desktop PC Complete with L.E.D 18.5"	11th Generation Intel Core i7-11700, 8GB DDR4, 512 GB SSD, DVD/RW, Keyboard/Mouse, DOS, 3 Year Local Warranty LED 1366 x 768 :HD 18.5" (47 cm) HD (1366 x 768 @ 60 Hz), Anti-glare Screen VGA (D-SUB) Without stand (W x D x H): 17.38 x 1.79 x 10.94 in With stand (W x D x H): 17.38 x 8.59 x 13.33 in 03 Year Warranty	For Developers and Radiologist	5	Sets				
2	Desktop PC Complete with L.E.D 18.5"	8th Generation Intel Core i3-, 8GB DDR4, 1T.B HDD, DVD/RW, Keyboard/Mouse, DOS, 1 Year Local Warranty LED 1366 x 768 :HD 18.5" (47 cm) HD (1366 x 768 @ 60 Hz), Anti-glare Screen VGA (D-SUB) Without stand (W x D x H): 17.38 x 1.79 x 10.94 in With stand (W x D x H): 17.38 x 8.59 x 13.33 in 03 Year Warranty	For Receptions	15	Sets				

3	<b>Laptop 12th Generation core i7</b>	Processor 12th Gen Intel® Core™ i7-1255U OS Windows 11 Professional, Graphics Intel® Iris® Xe Graphics Memory 16 GB, 2 x 8 GB, DDR4, 2666 MHz, Storage 1TB SSD Display 15.6-in. display Full HD (1920X1080) with Leather Bag and 2 Years Warranty	For Developers	1	Set				
4	<b>RAM DDR4 8GB RAM</b>	DDR4-2666 8GB VLP-DIMM Desktop Memory - 1.2V	For Existing System Upgradation	30	Pcs.				
5	<b>RAM DDR3 4GB RAM</b>	RAM DDR3 4GB RAM	For Existing System Upgradation	20	Pcs.				
6	<b>Power Supply 8 PIN</b>	Power Supply 8 PIN	For Existing faulty System	20	Pcs.				
7	<b>Power Supply 24 PIN</b>	Power Supply 24 PIN	For Existing faulty System	20	Pcs.				
8	<b>Hard Disk 1 T.B</b>	Internal Hard Drives 220MB/s Max. Sustained Transfer Rate OD (MB/s) 256 Cache, Multi-segmented (MB) 300,000 Load/Unload Cycles	For Existing faulty System	10	Pcs.				
9	<b>SSD 128 GB</b>	Up To 550MB/s Read Speed 2.5" SATA III (6Gb/s) solid-state drive (SSD)	For Existing System Upgradation	10	Pcs.				
10	<b>BIOS Cells (CMOS Battery)</b>	<b>CR2032 lithium coin cell</b>	<b>For Existing Systems</b>	30	Pcs.				
11	<b>PCI Express Wireless LAN Card</b>	Wireless AC1200 compatible (867 Mbps + 300 Mbps); Compliant with 802.11 a/b/g/n/ac standards; Dual band 2.4 / 5 GHz support	<b>For Existing Systems</b>	15	Pcs.				

12	<b>PCI Express LAN Card</b>	Designed to support 10/100/1000Mbps network speed Auto-Negotiation, 802.3x flow control and Wake-on-LAN technology.	<b>For Existing Systems</b>	<b>15</b>	Pcs.				
13	<b>Laser Printer</b>	38ppm-Duty Cycle Monthly: 80000 Pages 10/100/1000 Ethernet LAN connection with IPv4 and IPv6 Hi-Speed USB 2.0 2-line backlit control panel Prints 38 pages per minute (ppm) on A4 and 40 ppm on letter-size paper 2 Years Warranty	For Reception	<b>5</b>	Pcs.				
14	<b>Laser Printer Cartridges</b>	HP Original Tonner 26A	For Reception	<b>10</b>	Pcs.				
15	<b>Scanner Automatic Feeder</b>	Daily duty cycle 1500 pages, automatic feeding capacity 50 sheets,A4; A5; A6; B5; B5 (JIS) 2 Years Warranty	For Offices	<b>5</b>	Pcs.				
16	<b>DOT Matrix Printer</b>	Printing Method : Impact dot matrix, Print Speed : Up to 33 ppm, Printing Resolution : 360 x 180 DPI	For Registration Desk	<b>5</b>	Pcs.				
17	<b>DOT Matrix Printer Ribbons</b>	DOT Matrix Printer Ribbons 310	For Registration Desk	<b>50</b>	Pcs.				
18	<b>DOT Matrix Printer Ribbons</b>	DOT Matrix Printer Ribbons 350	For Registration Desk	<b>20</b>	Pcs.				
19	<b>UPS 1.5KVA (With Cables)</b>	1.5KVA single phase UPS Output power capacity980Watts / 1.5 kVA Nominal Output Voltage230V Output Voltage Note Configurable for 220 : 230 or 240 nominal output voltage Nominal Input Voltage230V with 04 output +- 1	For New Systems	<b>15</b>	Pcs.				

20	<b>Projector with Ceiling Mount</b>	4,000 lumens, WXGA 1280 x 800 native resolution, an intuitive, user-friendly design, and a sleek white chassis. Brightness of 4000 Lumens WXGA (1280 x 800) Native Resolution 1.21 to 1.57:1 Throw Ratio RCA, VGA, 2x HDMI Inputs slid pen 3lcd multimedia projector with Ceiling Mount and installation 2 Years Warranty	For Seminar Room	1	Pcs.				
21	<b>Automatic Projector Screen</b>	Multimedia Projector Screen (8 x 10)	For Seminar Room	1	Pcs.				
22	<b>Slide changer</b>	Logitech R400 with laser light, changing slides USB based	For Seminar Room	1	Pcs.				
23	<b>Complete Sound System installation with 3 Mics (Desk Mic, Collar Mic and Wireless Mic)</b>	Complete sound system with Speaker, Amplifier, 3 microphone inputs, 2 AUX input and 1 recording output, MAX 60 Watt speaker support.	Complete Package for seminar rooms	3	Sets				
24	<b>DSLR Camera with Lens</b>	EOS 5Ds Body 50.6 Mega Pixel CMOS Sensor 1080 30fps Video Recording 6 Digidig 61 AF Points 3.2" LCD Monitor 7 fps Shooting Built in WIFI/NFC & GPS 900 Shots 800g With Lens	For Marketing Department	1	Pcs.				
25	<b>DSLR camera stand</b>	Tripod/stand for DSLR, 5 feet max height	For Marketing Department	2	Pcs.				
26	<b>DSLR Bluetooth Mic</b>	Lavalier Collar Microphone for DSLR Camcorder	For Marketing Department	2	Pcs.				
27	<b>Rechargeable 9 Volt Battery with charger</b>	Rechargeable 9v battery for Mic and other equipment use	For Existing Batteries	5	Pcs.				
28	<b>EPSON L-805 Printer INK</b>	<b>EPSON L-805 Printer INK</b>	<b>For Existing Printer</b>	3	Pcs.				

29	<b>Portable hard Drive 4 T.B</b>	4TB Black Portable External Hard Drive - USB 3.0 1 YEAR WARRANTY	For IT Department	5	Pcs.				
30	<b>Laptops Batteries</b>	Battery for HP Laptop 15AC111TU, Sample based	For Existing Laptop	3	Pcs.				
31	<b>Keyboard</b>	USB Keyboard(Sample Based)		60	Pcs.				
32	<b>Mouse</b>	USB Mouse(Sample Based)		50	Pcs.				
33	<b>U.S.Bs</b>	64 GB USB Data traveler, High Speed Data Transfer		10	Pcs.				
34	<b>Bio Metric Machines</b>	facial multi-biometric time & attendance supports up to 1,200 face templates, 2,000 fingerprint templates and 10,000 cards (optional).		5	Pcs.				
35	<b>V.G.A Cables</b>	Standard VGA cable (Sample Based)		50	Pcs.				
36	<b>HDMI Cable 15 meter</b>	Standard HDMI Cable 15 metre (Sample Based)		10	Pcs.				
37	<b>HDMI Cable 10 meter</b>	Standard HDMI Cable 10 metre (Sample Based)		10	Pcs.				
38	<b>HDMI to Display converter</b>	HDMI to Display converter(Sample Based)		10	Pcs.				
39	<b>HDMI Splitter 4 Port</b>	HDMI Splitter 4 Port(Sample Based)		10	Pcs.				
40	<b>Wireless Mic</b>	K35 Wireless Mic - Professional		1	Pcs.				
41	<b>Multimedia Speakers</b>	Logitech Multimedia Speakers Z series with Sterio sound for Conference Computer		1	Pcs.				
42	<b>Power Cord 2 Pin 3 meter</b>	<b>Power Cord 2 Pin 3 meter branded</b>		50	Pcs.				
43	<b>External Drive case 2.5 to 3.5 inches</b>	<b>External Drive case 2.5 to 3.5 inches</b>		5	Pcs.				

**Note:**

1. The technical evaluation carried out by the Procurement Committee, SMBBIT, Karachi will be final.

Signature of Manufacturers /Importers/Sole Agents/Contractors: - \_\_\_\_\_

Name of Firm: - \_\_\_\_\_

Full Address: - \_\_\_\_\_

Telephone No. Office: - \_\_\_\_\_ Cell No: - \_\_\_\_\_

Email Address (if any) \_\_\_\_\_