

SCOPE OF WORK

Sr. No	Description of Items/ systems	Quantity	Annexure Reference
1	Hand Held Metal Detectors	80	S-1
2	X-Ray Baggage Scanning Machine	2	S-2
3	CCTV IP Cameras PTZ with outdoor casing and accessories	20	S-3
4	CCTV IP Cameras FIXED/ DOME with outdoor casing and accessories	500	S-4
5	CCTV Storage (NVR), Controller, CCTV Management Software, Servers Machines etc	Lot	S-5
6	CABLES (OPTICAL FIBER, Power cable, UTP patch panels, Data Racks, Optical fiber patch panel, ODF and related fitting Accessories for CCTV and IP network equipment	Lot	S-6
7	Video Wall / LED screens (8) with system controller (1) and accessories	Complete System	S-7
8	Control Room Infrastructure (Air Conditioners, Renovation including Civil works etc) and related fitting accessories	Lot	S-8
9	IP Network Core & Access Switches, Fiber Interface SFPs Cards and related Items	System	S-9
10	UPS system Imported / Branded (600 VA, 3 KVA, 10 KVA, 30 KVA)	Lot	S-10
11	Intercom System/ IP PABX with internal cables (HS Jail, Admin only) with Voice Recording system	1- System	S-11
12	Walkie Talkie with 2 bases stations	36	S-12
13	Walk Through Gates	10	S-13
14	Computer, Laptop along with Light duty printer	20	S-14
15	Fax Machine with scanner	2	S-15
16	Photo State Machine Heavy Duty	2	S-16
17	Biometric (Finger Identification on main entries - Admin Block Finger Print Scanner for Prisoners and Digital Cameras, Barcode reader for Admin Block Only)	6	S-17
18	Electric Siren (Heavy Duty)	10	S-18
19	Hand Driven Siren (Heavy Duty)	10	S-19
20	Fire Detection system for Admin Block only	System/Lot	S-20
21	Fire Extinguisher System (Cylinders) for All facility	System/Lot	S-21
22	Road Blockers with complete system	4 Sets	S-22
23	Tire Killers	Complete System	S-23

24	Barrier (Both Side) In/ Out on main gates	4 System	S-24
25	Under Vehicle Scanner	2 System	S-25
26	Search Lights Heavy Duty	50	S-26
27	Emergency Lights (Heavy Duty)	50	S-27
28	Spot light - Hand Held (Heavy Duty)	20	S-28
29	Service Level Agreement with resident Staff at Site (24x7x365) -1 st -Year -2 nd - Year -3 rd -Year (<i>Separate Contract & PO will be issued for SLA</i>)	Service	S-29
<i>NOTE :</i>	<i>Three Years Warranty for above Equipment</i>		

Hand Held Metal Detectors

Quantity Required: 80-Nos.

Specification / Description :	Compliance (Yes/No)
Detect even pin-sized metal, Razor Blades and Box Cutters from 3” Distance or better	
Working power supply: 9V battery (Rechargeable battery) or equivalent, Easier Way to Change the Battery	
Alarm Modes: Sound, Vibration & LED Indication	
Low consumption of battery	
Self-Calibrating: Digital Microprocessor Technology Eliminates the need for Periodic Adjustments	
High accuracy and sensitivity required	
Battery management system continuously monitors the deficiency of power VIA LED Indication	
Must have feature to Adjustable Detection levels as per requirements	
Sharp Audible Alarm & Bright LED Light indicates the detection of Metal	
Charger with power cable / adaptor	

- Warranty : 03-Years

X-Ray Baggage Scanning Machines

Quantity Required: 02

FEATURES

- Capable of detecting concealed guns. Knives and other weapons. Organic and magnetic materials including explosives and drugs contraband.
- Capable of displaying negative image.
- Advance imaging features include color. Automatic threat alert with conveyor stop. Multiple zoom. Scan enhancement and high **penetration**.
- Integrated electrically driven conveyor belt system.
- Real time Display.
- High –Speed digital signal transmission.
- High manageable resolution shall comply with minimum standards for safety from radiation.
- Three Years Warranty

TECHNICAL SPECIFICATIONS:

Description/ Features	Required Parameters	Compliance (Yes/No)
Tunnel Dimensions		
A- Width	Minimum 500mm to 550mm	
B- Height	Minimum 350 mm to 400 mm	
Resolution Guaranteed	Minimum 38 AWG	
Resolution Typical	35 AWG to 45 AWG or better	
Penetration Guaranteed (Steel)	25 to 40 mm or more	
Penetration Typical	30 to 40 mm or more	
Conveyor Load Capacity	Minimum 100 Kg or more	
Conveyor Height	Adjustable	
Image Presentation	Color , Black & White	

Belt Speed	Minimum 0.2 to 0.30 m/s	
Alert for Steel	If Thickness of steel greater then 35mm or more	
X-RAY SOURCE		
Tube Voltage	Minimum 140 to 150 kv	
Tube Voltage	Minimum 0.5 to 0.7 mA	
Cooling	Oil Bath	
X-Ray Beam Direction	Diagonal	
Technology	Linux / Siprox or equivalent	
LCD	19" LCD monitor SVGA 1280x1024 or better	
Input Voltage	230V +/- 10% (As per Pak Standards)	
Image Zoom	Required	
Multiple simultaneous	Software Feature through Hot Keys	
Internet Image storage	Minimum Capacity to store 5000 Images on standard resolution	
Certification	a -ISO 9001: 2000	
	b -Airports Council international standards	
Compliance	a - US FAA Standards /	
	b - EN 61000, EN 55022 in relation to EMC	
	c - EN 294, EN 349, EN 602041 in relation with Machine	
Health Safety	a - System Fully Meets the Applicable International Regulations For X-Ray Equipment	

- Warranty : 03-Years

IP CCTV Camera Type PTZ OUT DOOR with Casing and Accessories**QUANTITY REQUIRED: 20–Sets (with Standard accessories)****Supply of POLES and Installation with related works for PTZ Camera: 20 Nos.**
(Height 20-25 ft)

Sr. No.	Specification / Description	Compliance (Yes/No)
	2 Megapixel Full HD Network PTZ Dome Camera	
1	2 Megapixel or higher	
2	(1/3" Type) PS CMOS Sensor	
3	30 fps @ 1920 x 1080	
4	20XOptical Zoom, 8X Digital Zoom	
5	Min. Illumination	
	· Color : 1.5 Lux @ F1.6, 50IRE	
	· B/W : 0 Lux with IR Illuminator ON	
	· ICR Day & Night	
6	Mostly Network Protocol support : TCP/IP, UDP/IP, HTTP, HTTPS, RTP, RTSP, DHCP, ICMP, SMTP, NTP, ARP, SNMPv1/v2c/v3, DDNS, UPnP, IGMP,FTP, IPv6, IPv4	
7	Wide Dynamic Range Minimum 60b	
8	H.264 (High profile supported) / MJPEG, Multiple Streaming	
9	SD/SDHC Memory Slot, Bidirectional Audio supported	
10	Panning Range & Speed: 0°~360°, Max. 250°/Sec or better	
11	Tilting Range & Speed: 0°~130°, Max. 120°/Sec or better	
12	Vandal Proof / IP66, IK10	
13	Open Protocol ONVIF Supported	
14	Web Viewer: Internet Explorer, Google Chrome, Firefox Mobile Viewer: iPhone, iPad, Android	
15	AC24V, TEMP: -10 ~ 55 Degree Centigrade	
16	IR Illuminator: Viewable Length 100 Meters with 0 Lux or better	
17	Water Proof Junction box, Weatherproof Housing & Bracket including all Fitting Accessories	

- Warranty : 03-Years

IP CCTV Camera Type FIXED OUT DOOR with Casing and Accessories**QUANTITY REQUIRED: 500–Sets (with Standard accessories)**

Sr. No.	Specification / Description	Compliance (Yes/No)
1	2.0 Megapixel (1920x1080) or higher	
2	Minimum (1/2.8” type) PS CMOS Sensor	
3	3.0 ~ 8.4mm or Higher Motorized/Manual Zoom Lens	
4	Multiple Streaming, H264/MJPEG Dual Codec	
5	Minimum 60 fps @ 1920 x 1080 or better	
6	Minimum Illumination: 0.1 Lux	
7	Bi-directional Audio, Defog, Audio Detection	
8	SD/SDHC Memory Slot, Simple Focus, UPnP	
9	Wide Dynamic Range: 120 dB or better	
10	ICR Day & Night, 2D + 3D DNR or Eqv.	
11	Anti-flicker, ATW/AWC/AGC/Privacy Masking	
12	Network Protocol IPv4/6 - TCP/IP, UDP, HTTP, HTTPS, RTP, RTSP, DHCP, ICMP, FTP, SMTP, NTP, ARP, SNMPv1/v2c/v3, DDNS, PIM-SM, UPnP	
13	Uni cast/Multicast, Multi-crop Streaming	
14	Web Viewer: Internet Explorer, Google Chrome, Firefox Mobile Viewer: iPhone, iPad, Android	
15	PoE, Audio IN/OUT, RJ-45 Ports	
16	Alarm In / Out, Audio In / Out, Motion detection : Support Event Notification : Relay Out, Email, FTP	
17	IR Illuminator 30 Meter or Higher	
18	Vandal Proof / IP66, IK10, Weather proof housing / bracket stand complete in all respect	

- Warranty : 03-Years

(NVR) Network Video Recorder over IP:**QUANTITY REQUIRED: 12–Sets (with Standard accessories)**

Sr. No.	Specification / Description	Compliance (Yes/No)
1	Up to 2 Megapixel Minimum 64CH Real Time Recording Capability to support recording of all proposed IP cameras	
2	ONVIF Supported for Multi Cameras Brand Recording & View, H264, MPEG-4, MJPEG	
3	Recording: Manual/Schedule, Event (Pre/Post) HDD	
4	Event Trigger Minimum : Alarm Input/Video Loss, Camera Event like Sensor, MD, Video Analytics, Object Classification, Car/People	
	Event Action Minimum : E-mail, PTZ Preset, Alarm Out, Buzzer, LCD Out	
5	VGA/HDMI Local Monitor Out	
	Support minimum 12 HOT Swap HDD Internal Storage slots, RAID 5/6, ISCSI Storage Supported for External Data Storage	
6	Built in / pre installed HDD 8 Nos. each HDD= 4TB Min.= total 32TB minimum	
7	Redundant HOT Swap Power Supply	
8	Live/Playback, Recording, Backup, Networking, Web viewer, iPhone, Android	
9	PTZ Preset Supported, Alarm IN/OUT, RJ-45, Gigabit Ethernet	
10	Network Protocol: UDP, HTTP, RTP, RTSP, DHCP, ICMP, FTP, SMTP, NTP, ARP, SNMPv1/v2c/v3, DDNS, PIM-SM	
11	Minimum Remote User: 10	
12	Multi Language Supported	
13	USB Ports for Back UP, Reset Switch, VGA, HDMI	
14	Multi-Screen Display: 1/4/9/16/32/64/Sequence, Search Mode: Event Log List/Date & Time.	
15	Resolution minimum : CIF~5MP, Playback: Fast Forward/Backward, Move one Step up/down	
16	Supported OS: Windows XP, Vista 7, 8 Mac OS	
17	Log List Memory: Minimum 20000 System Log & Event Log	
19	Two Way Audio Support & Audio Detection	
20	Input Voltage: 110~240 VAC Operating Temperature: +0 ~ 40 Degree Centigrade	

- Complete cables and fitting accessories required for installation of above items
- Warranty : 03-Years

IP CCTV PTZ CONTROLER:**QUANTITY REQUIRED: 03–Sets (with Standard accessories)**

Sr. No.	Specification / Description	Compliance (Yes/No)
	PTZ Controller	
1	Compatible with PTZ Cameras	
2	Built-in 3 Axis Joystick for Zoom	
3	USB Interface	
4	Power: 5VDC VIA USB	
5	Easy Firmware Upgrade	

- Warranty : 03-Years

CCTV Monitor and Management Software:**QUANTITY REQUIRED: 01– software to support complete system / Licenses;**

Sr. No.	Specification / Description	Compliance (Yes/No)
	CCTV system Management Software	
1	H264, MPEG4, MJPEG Supported Format	
2	Minimum Resolution CIF ~ 5 MP	
3	Bi Directional Audio (Listen/Talk)	
4	Multi Monitor Supported Minimum 4 Monitors	
5	PTZ Control: Area Zoom, PTZ Sensitivity, Zoom, Preset, Patrol, Iris Control, Trace/Patron, Group/Scan, Swing/Auto pan, 360 Degree View	
6	MAP monitoring, Split View Mode for MAP Layout, 2D View, Zoom In/Out, Video popup, Camera/Sensor/Alarm ICON view	
7	OSD ON/OFF, Snapshot, Prints, Image, Flip, Digital Zoom	
8	Site/User Management: Site/User Group/User Account Management, Permission Management for Viewer Functions	
9	Supports Simultaneous Video Display Up to 64 Monitors or more	
10	Supports Sequences Aromatic Switching	
11	Reporting: Manual Reports, Print & Save Functions Format (Excel, PDF & Word)	
12	Real Time Event List: Shows the Real Time Event List of Devices, Viewing Instant Video Images	
13	Screen Lock, User Access Log for Security	

14	<p>Minimum Intelligent Video Analytics for all Cameras</p> <ul style="list-style-type: none"> a) Motion Detection b) Face Detection c) Appear/Disappear d) Virtual Line e) Enter/Exit f) Tampering Detection (Camera Tampering or Field of View Change) g) Audio Detection 	
15	Split Screen Mode: 1/4/6/8/9/10/13/16/17/21/25/36/49/64 or more	
16	Back Up: Local Storage, Back Up	

- Warranty & Support : 03-Years

Rack Mount Server		Compliance
Quantity = 10 Nos.		(Yes/No)
Item	Description	
Form factor	Minimum 1U Rack Mount	
Processor	Intel® Xeon® E5-2403 v2 1.80GHz, 10M Cache, 6.4GT/s QPI, No Turbo, 4C, 80W or better	
CPU (Installed / Max)	1 / 2	
L3 Cache	Min. 10MB	
Chipset	Intel C602 supporting Intel Xeon E5-2400 series Processors or eqv.	
RAM (Installed / Max Supported)	16 GB, RAM Memory Installed and expandable	
RAID	Integrated RAID Controller Card with 512Mb NV Cache	
Hard Disk Drives	4 x 300 GB 10K RPM 2.5 inch SAS Hot Plug Hard Drive	
Hard Drive Bays	Min. 8 Hard Drives Bay	

Optical Drives	Super Drive	
Network	2 x Integrated Gigabit Ethernet	
Graphics	Integrated Graphics	
Ports	Min. 4 x USB 2.0 1X PS/2 for Keyboard via USB Dongle 1X PS/2 for Mouse via USB Dongle 1X VGA	
Keyboard & Mouse	USB Keyboard & Mouse	
Monitor	None	
Power Supply	Redundant Power Supply	
Utility Software	Server Management Software (Server management / Diagnostics / Configuration Software) (Media Kit Included)	
Accessories	Rack Rails and Mounting Kit	
Operating system Licenses	MS windows Server 2008 R2 standard (5-Cal) (Pre-installed) with media	
Support / Drivers CD	All drivers CDs and manuals	
Warranty	Comprehensive On-site 3-years warranty	

(Branded) Rack with cables and Accessories:

Branded Server Rack (Preferable Same Brand as of Server or Equivalent) with 3-years of warranty		Compliance
01- Set Complete of each item below		(Yes/No)
Item	Description	
Rack Size	42U with Dual PDU's, Cables with all required cables for	
PDU	Digital PDU Power Cords, 16A to 19A	
KVM Switch	Same brand of Server supported , Digital KVM Switch 16 Ports (including required cables)	
Rack Console	1U KMM (Touch English Keyboard and 17" inch LCD or higher) with Rack Rails	

- Warranty : 03-Years

Annexure – (S-6)**CABLES (OPTICAL FIBER, Power cable, UTP patch panels, Data Racks, Optical fiber patch panel, ODF and related fitting Accessories****UTP Cable and accessories**

Description	Qty
UTP Cat 6 PVC cable rolls (1000 ft)	300 Rolls
Dual Shutter faceplates with RJ-45 Jacks with back boxes	600 Sets
UTP Cat 6 PVC drop cords (3 meter)	200 Nos.
UTP Cat 6 PVC drop cords (1 meter)	900 Nos.
UTP Cat 6 PVC drop cords (10 meter)	50 Nos.
24 port UTP Cat 6 patch panels (including RJ-45 jacks)	30
Single sided cable managers	60
Flexible Pipe, PVC 1 inch (10 ft length)	90 Length
Flexible Pipe, Metal 0.5 inch (10 ft length)	50 Length
RJ-45 Connectors	10-Box
RJ-11 Connectors	05-Box
Flexible Pipe, 1.5 inch (10 ft length)	50 Length
Flexible Pipe, 2 inch (10 ft length)	50 Length
Flexible Pipe, 3 inch (10 ft length)	50 Length
Flexible Pipe, 4 inch (10 ft length)	50 Length
Cable Ties (6 inch)	20-Pack
Cable Ties (8 inch)	10-Pack
Cable Ties (10 inch)	10-Pack
Cable Ties (12 inch)	10-Pack
Alphabetic tags	20-Pack

Numeric tags	20-Pack
Covering Duct PVC 16x16 (per 10 ft length)	100 Length
Covering Duct 16x38 (per 10 ft length)	200 Length
Covering Duct PVC 40x40 (per 10 ft length)	100 Length
Covering Duct PVC 60x60 (per 10 ft length)	100 Length
Covering Duct PVC 80x80 (per 7 ft length)	100 Length
Covering Duct PVC 100x100 (per 7 ft length)	50 Length
<u>Data Cabinet / Racks</u> Standing Rack, Height 42U Width 600 mm, Depth 800 mm, Black, Powder Coated (Front Glass Door, Back Perforated Door, 2 Removable Side Doors,) Internal Structure SWG 16, Outer Structure SWG 18, 3 Fixed Tray, 3 Moveable Tray, PDU 2-Nos with Multi Power socket minimum 12-Sockets (Minimum 7 IEC320 ports , 16/32 AMP power etc) 4 Cooling Fans.	20 Sets

-Above items (Annex-6) payment will be made on the bases of As Per Actual (APA)

-Preferred Brand for PVC Pipe, Duct and related accessories: ADAMJEE / POPULAR / Equivalent..

-Warranty Cable : 03-Years

Optical Fiber Cable and accessories

Description	Qty
12 core single mode outdoor armored (9 micron) OFC (in meters)	5,000 Mtrs
SC-LC single mode fiber patch cord (3 meters)	80 Nos.
SC pigtails single mode (1.5 meter)	240
OFDF with 12 SC ports – Rack mountable	15
OF Patch Panel / OFDF with 48 SC ports – Rack mountable	4
PVC Pipe, 0.5 inch (per 10 ft length)	50 Length
PVC Pipe, 1 inch (per 10 ft length)	150 Length
PVC Pipe, 1.5 inch (per 10 ft length)	100 Length
PVC Pipe, 2 inch (per 10 ft length)	150 Length
PVC Pipe, 3 inch (per 10 ft length)	100 Length
PVC Pipe, 4 inch (per 10 ft length)	100 Length

- Warranty for Cable : 03-Years
- Above items payment will be based on As per actual (APA)

Power Cabling

Description	Qty
Power cable 7/29 (Pakistan/ FAST / Newage Cables)	20 Rolls
Power Breaker 5 Amp (as per requirement of design) Schneider/Terasaki	40 Nos.
Other related items and fitting accessories , in all respect for the completion of complete project	1-Lot

Above items payment will be based on As per actual (APA)

Video Wall / LED Display Screens with Controller and related items and accessories:

VIDEO WALL / NOC SCREEN LED/LCD

Required Parameters	Range / Value (Required)	Compliance (Yes/No)
SIZE		
Active Screen Diagonal Size	Diagonal Size of the display modules should be minimum 55" or more	
Display Matrix	Four (4) Horizontal by (2) two Vertical Matrix (4x2) Total : 8 Screens (Expandable)	
DISPLAY		
Panel	Minimum 55" Super Narrow Bezel or higher	
Resolution	Full HD 1920 x 1080	
Backlight	Preferable LED	
Brightness	450 nits minimum	
Contrast Ratio	3500:1 minimum	
Color Capability	16 Million or higher Color	
Viewing Angle	H:175*,V:175* minimum	
SIGNAL COMPATABILITY		
Scan Rate	H: 30~75kHz, V:50~85Hz, Maximum Pixel Rate: 162MHz	
Video Compatibility (CVBS)	NTSC 3.58/NTSC4.43, PAL, SECAM	
HDTV Compatibility (Component)	480i, 480p, 720p, 1080i, 1080p	
TERMINALS		
Input	HDMI, DVI	
Output	DVI	
Other Features		
MTBF	>=50,000 hours	
Maintenance feature	Quick Swap modules	
Active to Active screen gap	<=5.7mm or better	
Panel Construction	The LCD module must include mounting system that allows for adjustment to achieve a perfectly aligned LCD Array	

- Warranty : 03-Years

Annexure – (S-7)

VIDEO WALL CONTROLLER & Software – (01- Complete)		
Required Parameters	Range / Value (Required)	Compliance (Yes/No)
Basic function	Should allow users to place windows of any size anywhere on the video wall, without any compromises on quality. Should also allow expansion of displayed content of one LCD to complete wall or the chosen screen area. To make the above the display behave as a single logical screen and provide functionalities of display of windows through LAN, RGB and VIDEO inputs as per specification below	
Platform	Windows 7 minimum	
Control Processor	Dual Quad Core Intel 64-bit Xeon 2.0 GHz min	
RAM	4 GB- DDR2 SDRAM (400MHz) min	
Hard Disk	Min 80 GB Sata hard disk with RAID	
Peripherals	LAN(10/100/1000Mbps), HDD,DVD-ROM, Wireless keyboard and Mouse	
Output Signal	DVI	
RGB Input resolution per card	640x480 up to 1400x1050	
Inputs	Minimum 8 inputs , Ethernets inputs are mandatory	
Video input lines	PAL/NTSC 3.58	
Bandwidth	Real time display of both RGB and video inputs on the display wall	
Power supply	Dual hot swap able power supply (220Vac 50HZ)	
LAN Connectivity	Dual LAN Connectivity	
LAN based visualization wall management software	Software for LAN based remote screen Visualization	
Salient features	To make the above display behave as a single logical screen and provide functionalities of display of windows of LAN , RGB and VIDEO inputs as per specifications below	
Scenarios	Save and restore Wall Layouts	
Features Customizable as per requirements	YES	
Wall layout management	Free Positioning, Resizing all sources / Windows. Easy to use .	
Third party touch interface possibility	YES	
Remote Control	Control Wall from Remote PC through LAN	

wall management software	i) the Software shall be able to pre configure various display layouts and access them at any time with a simple mouse click or based on the timer.	
	ii) the wall management software shall allow switching the video streams.	
	iii) Administration: Privileges, hierarchical administration and division of the large screen wall into different areas can be defined for every user. Multiple display wall can be controlled simultaneously. Multiple users can operate the large screen system simultaneously. Control the full range of Analogue video, streaming video sources, RGB computer images, local and server applications residing on the LAN.	

- Warranty & Support : 03-Years

Annexure – (S-8)

Control Room Infrastructure (Air Conditioners, Renovation including Civil works) and related fitting accessories

Description	Qty
Split Air Conditioner 02- Tons (Mitsubishi / LG / General / Gree) with complete fitting and accessories	08-Nos
Split Air Conditioner 1.5 -Tons (Mitsubishi / LG / General / Gree) with complete fitting and accessories	15-Nos
Providing and laying of selected Porcelain tile of approved color for floor laid with style bond with ¾ thick cement sand mortar bed filling the joints with colored style bond or cement grout complete in all respect	500 SFT / APA
Supply and laying 4” high skirting using selected above porcelain tiles laid over ½ to ¾ thick roughened base plaster complete all respect	100 RFT / APA
Wooden Doors for NOC and data Rooms with Glass and standard locks and pre-installed system to integration with Access Control system	04-Nos
Wood Paneling on walls and Wall paper (if required) to NOC and data Room	1- Job Complete
Wall mount bracket Fans with cabling etc	30-Nos
Wall mount Exhaust Fans (Plastic) 24” or better with cabling etc	30-Nos
Other items and services for the installation and accessories required	1- Lot Complete
- Warranty : 03-Years	

IP Network Core & Access Switches, Fiber Interface SFPs Cards and related Items:

Specification / Description	Quantity Required
Core Switch	
Modular Access Switch with 7 slots, supports minimum 1.7 Tbps Switching capacity & minimum 480 million pps. Redundant Power supplies	2- Nos.
L3 and SSH enterprise feature set	
Redundant Processor cards (preferable hot swappable)	2- Nos.
12 x 10G with SFP+ slots	4- Nos.
48 x 10/100/1000 Ethernet Ports (for Single Mode OF)	2- Nos.
1000BASE-LX/LH SFP transceiver module (for Single Mode OF)	30- Nos.
LAN / Access Switch	
24 x Gig PoE + 4 x 1G SFP uplinks, Power over Ethernet Plus (PoE+) support with up to 740W or more	28- Nos.
1000BASE-LX/LH SFP transceiver module (for Single Mode OF)	34- Nos.
Warranty for 03-years	1-Service

Technical Specifications as:

Core Switches

General System Requirements

1. The proposed switch should support IPv6.
2. Must support advanced dynamic Routing Protocol and advanced QoS features
3. Dual Core Processors on the processing module
4. Have proper cooling and power efficiency.
5. The core switch should support virtualization feature

High Availability Requirements

1. The switch should have redundant switch fabrics with stateful switchover.
2. The proposed switch must support ISSU (In Service Software Upgrade) with zero packet loss
3. The core switches should have redundant control/supervisors cards.
4. The proposed switch should have redundant power supplies (1+1).
5. The proposed switch should support graceful restart in addition to Stateful process restart for L2 & L3 protocols
6. Dual redundant Ethernet out-of-band channels to each module and fabric to provide resilience.

Capacity Requirements

1. The Core switch shall support switching capacity of minimum 1.7T bps
2. The core switches should support minimum 48Gbps per slot with upgrade path to higher throughput capacity per slot.
3. The proposed switch shall support high density of 10G interfaces
4. The core switch should have minimum 6 IO slots for line cards or more

Access Switches

General System Requirements

1. Access switches will be used to connect the servers and IP cameras directly and other IP devices
2. Minimum Stacking of up to 4 switches with 40 Gbps of stack throughput
3. Minimum support front to back cooling compatible with data center hot-aisle and cold-aisle designs

High Availability requirements

1. The proposed switches should have redundant power supply option
2. All the uplinks from access to aggregation should work in active/active mode or better
3. Supports 24 Gigabit Ethernet ports and 4 x 10 G uplinks or more

Capacity Requirements

1. Proposed switch should support hardware forwarding at 160 Gbps or 100 million packets per second (mpps) or more
2. Dual- FRU power supply with integrated fan
3. Energy - Efficient Ethernet (EEE) downlink ports
4. Layer 3 features support of major routing protocols
5. Proposed switch must have Application Visibility and Control.
6. Proposed switch should have stacking feature to enhance the backplane and Ethernet ports.
7. Proposed switch must have 802.1x support
8. Proposed switch should support IPv6 without any additional licenses
9. Must support 802.1Q trunking

Standard Protocols Support

1. The proposed switch should not occupy more than 1 RU space.
2. Layer 2 Features
 - a. Layer 2 VLAN trunks
 - b. IEEE 802.1Q VLAN encapsulation
 - c. Spanning Tree Port Fast and Port Fast Guard
 - d. Spanning Tree Bridge Assurance
 - e. Internet Group Management Protocol (IGMP) Versions 1, 2, and 3 snooping
 - f. Advanced Port Channel hashing
 - g. Jumbo frames on all ports (up to 9216 bytes)
 - h. Pause frames (Priority Flow Control [PFC] and IEEE 802.3x)
 - i. Private VLANs (promiscuous only on uplinks)
 - j. Auto negotiation to 1000BASE-T; full duplex on host interfaces
 - k. QoS features

TECHNICAL SPECIFICATIONS FOR UNINTERRUPTABLE POWER SUPPLY SYSTEM (UPS) :

QUANTITY REQUIRED: 30–Sets (with Standard accessories)

<u>550 / 650 VA UPS</u>	<u>Compliance YES/NO</u>
Line Interactive	
Actual Power 550 / 650 VA	
Single Phase	
Nominal Output Voltage Single Phase 230VAC	
Frequency Range 45 – 55 Hz or better	
Front Display LCD optional	
Mini Tower / Rack	
Protection Level IP20 or better	
Remote Monitoring USB/RS-232	
RJ45 Surge Protection	
Emergency Power Off	
IEC / EN/ AS 620040-2 / IEC EN/AS62040-1-1	
Software Communications	

- Warranty : 03-Years

2.0 to 3.0 KVA UPS

QUANTITY REQUIRED: 20-Sets (with Standard accessories)

<u>On-Line 2000VA to 3000 VA UPS</u>	<u>Compliance YES/NO</u>
Double Conversion On Line	
Pure Sine Wave	
Transfer Time Zero	
Actual Power 2000VA to 3000VA	
Input Power Factor ≥ 0.95 or better	
1 Phase	
Nominal Output Voltage Single Phase 230VAC	
Input Frequency Range 40 - 70 Hz or better	
Front Display LCD optional	
Mini Tower / Rack	
Protection Level IP20 or better	
Remote Monitoring USB/RS-232	
RJ45 Surge Protection	
Emergency Power Off	
EMI: EN 62040-2:2006	
Safety: EN 62040-1-1:2003	
Performance (Technical Feature) IEC / EN 62040-3	

- Warranty : 03-Years

10 KVA UPS

QUANTITY REQUIRED: 04–Sets (with Standard accessories)

<u>10 KVA UPS</u>	<u>Compliance</u> <u>YES/NO</u>
Double Conversion On Line	
Transfer Time Zero	
Pure Sine Wave	
Actual Power 10000VA	
Input Power Factor = 0.99 or better	
Input Voltage 230 / 400 V , Single Phase,3-Wire or 3 Phase,4 Wire System	
Input Voltage Range Single Phase,120 V to 276 V , 3,Phase, 305V to 478 V	
Input Frequency Range 45 Hz to 65 Hz or better	
Output Voltage 220/230/240 V	
Output Frequency Stability 0.25% or better	
Parallel Operation 3 + 1 minimum ;	
Tower and Rack Convertible optional	
EMC:IEC / EN62040-2,IEC/ EN61000-3-11,IEC/ EN61000-3-12,YD / T1095-2008	
Standards / Conformity: IEC / EN62040-1-1	

- Warranty : 03-Years

30 KVA UPS

QUANTITY REQUIRED: 02–Sets (with Standard accessories)

	<u>Compliance</u> <u>YES/NO</u>
Double Conversion On Line	
Actual Power 30000VA	
Input Power Factor = 0.99 or better	
Load Power Factor .9 leading .9 lagging without Capacity	
Nominal Output Voltage 380/400/415,three phase four wire	
Input Frequency 40 Hz - 70 Hz	
Input Voltage Range 305 V – 477 V	
THD <1% with 100% balance load, THD <4% with 100% balance load	
Layered independent sealed duct and redundant Fan design, Dust Filter, Circuit Board painting protection.	
Bypass Over load 135% Rated Output Long term Operation, 135% to 170% for 1 Hour	
Over load on Inverter 110% for 1Hour , 10Min for 125% , 1 Min for 150%	
Remote Monitoring USB/RS-232	
RJ-45 Surge Protection	
Battery Type VRLA or better	
IEC60950/1,IEC62040-1-1/AS62040-1-1,EMC:IEC62040-2/AS62040-2/EN50091-2CLASS-A Design and Test IEC62040-3/AS 62040-3	

- Warranty : 03-Years
- **Including all required cables, Power Breaker, Earthling/Grounding Items and service, fittings, accessories (Turnkey with all respect) other related material and installations of all above ups with all respects for installation, commissioning etc for all UPS 650VA to 30-KVA.**

Note : Prison Deptt will not give any material for installation

Annexure – (S-11)

PABX / INTERCOM system for Jail Admin Block/Office with call recording system:

Complete System - 01

Sr. No.	Item Description	Qty
1	Hardware Box support of IP & Analogue Extensions of minimum 100 extensions (incl. min. 50+ Analog extensions) ; Redundant power supply (preferable), MDF/Tag block, minimum 01-PRI interface Card pre-installed including all required cables and connectors etc	1
2	- PSTN Input Lines minimum 20 lines supported and extendable - PRI card pre installed 01-Nos - Analogue extensions support / interface pre-installed: minimum 50 (expandable up to 100)	
3	Analogue Phones with CLI	70
4	Supply of 2-Pair PVC Cable and for Telephone sets installation and commissioning, complete job	10-Rolls (1000ft each min) 1-Job
5	Feature required : CLI , Call recording, CDR/ Billing, Call Waiting, Call Forwarding, Conf call, Call Transfer, MOH, IVR and other standard features	

- Warranty : 03-Years

Walkie -Talkie Sets with Base stations and Antennas**A- TECHNICAL SPECIFICATIONS FOR WIRELESS WALKIE-TALKIE SYSTEM****QUANTITY REQUIRED: 36 –Sets (with Standard accessories)**

Item/Required Parameters	Range/Value	Compliance (Yes/No)
Frequency range (VHF)	136MHz–174MHz	
Number of channels	16 channels minimum	
Channel spacing	12.5kHz/25kHz	
Keypad	Alpha-Numeric Key Board on Set	
Display	Single Line Display on Set	
Type of emission	F2D / F3E	
Current drain Rx (Stand by)	60mA typ.	
Antenna	Standard with Set	
Belt Clip/Holder	Required with Standards as per Set	
TRANSMITER		
RF output power (at 7.2V DC)	5.0 or 1 W (High/Low)	
Spurious emissions	Less than -70dB	
Frequency stability	+/-2.5ppm	
RECEIVER		
Sensitivity (at 12dB SINAD)	0.25 μ V / 0.18 μ V / 0.18 μ V	
Adjacent channel selectivity (W/N)	72/65dB typ.	
Spurious & Image rejection	80dB typ.	
Inter modulation rejection	72dB typ.	
Dust & Water	IP54 (Dust-protection and water resistant)	
Battery pack	Re-chargeable, Large capacity Li-Ion battery pack with Operating Hours 15+	
Power management	Power save function and auto power off	
Warranty	Three Years	

B- TECHNICAL SPECIFICATIONS FOR BASE STATION AND RELATED ACCESSORIES

QUANTITY REQUIRED: 02 –Sets (with Standard accessories)

Item/Required Parameters	Range/Value	Compliance (Yes/No)
Frequency range (VHF)	136MHz–174MHz	
Number of channels	16 channels minimum	
Channel spacing	12.5kHz/25kHz	
Keypad	For Programming	
Display	Display on Base	
Type of emission	F2D / F3E	
Antenna	Fiber Glass Antenna OUTDOOR – 3.5dB with cable 120Ft Coaxial	
TRANSMITER		
RF output power (at 13.6 V DC)	50W/25W High/Low or eqv.	
Spurious emissions	Less than = 70dB	
Frequency stability	+/-2.5ppm	
RECEIVER		
Sensitivity (at 12dB SINAD)	0.25 μV / 0.18μV / 0.18μV	
Adjacent channel selectivity (W/N)	72/65dB typ.	
Spurious & Image rejection	80dB typ.	
Inter modulation rejection	72-75 dB typ.	
Dust & Water	IP54 (Dust-protection and water resistant/Rain proof)	
Hand Micro Phones	Standard set pre-installed with base	
Power supply	Standard Power supply and DC Lead with Fuse Kit	
Warranty	Three Years	

Walk Through Scanning Gate

Quantity Required: 10

- Detection of weapons including sharp edged steel knives and Fire Arms like Pistols, Guns and Weapons
- Detection of metals, particularly, Gun-Grade Alloys and precious metals.
- Detection of narcotics and explosive substances concealed in containers of metals foils.
- Battery backup

TECHNICAL SPECIFICATIONS

Description/ Features	Required Parameters	Compliance (Yes/No)
Zone number	Minimum 18 Zones	
Detection	Pin Point	
Detection Type	Micro Processor based and Control Circuits	
Input Voltage	230V +/- 10% (As per Pak Standards)	
Environmental metal interference	Weather Protected	
Key Pad	Key Pad / Touch Pad	
Working Environment		
Ambient Temperature	Minimum 0C to 40C	
Relative Humidity	Minimum 10 to 90	
Dimensions		
Tunnel Size :	Minimum Width : 30"	
	Minimum Height : 80"	
Certifications :		
International Certifications :	ISO 9001 Quality Control standards	
	International Security Standards as per EU/USA	

- Warranty : 03-Years

Desktop Computers, Laptop, Laser Printers:

Desktop Computers:

Quantity Required: 25 Sets (Reputable Foreign Brands Required)

ITEM	DESCRIPTION	Compliance (Yes/No)
Processor	Intel® Core™ i5-3470 Processor 6M Cache 3.2 GHz or higher	
Mother Board	Intel Original Motherboard Q77 or higher	
Memory	4GB-DDR-III 1333 MHz or higher	
Hard Disk Drive	Min 500 GB SATA with 7200 RPM or higher.	
Super Drive Internal	CD+/-RW and 16X DVD R or higher (Combo Drive), compatible with Microsoft Windows 2000/Xp/2003/Vista/Win7 and Linux.	
Display & Sound Card	Built-in Video Graphics display and sound card.	
Network Adapter	Built-in 10/100 / 1000 base-T Ethernet card (Microsoft Windows 2000/Xp/2003 or latest, Red Hat Linux Supportive) Wake on LAN (WOL) support	
Monitor	18" LCD Monitor or higher, Low Radiation, 1024 x 768 Resolution supportive.	
Mouse & Key	Standard Keyboard and 2.0 USB 2-Button Optical Mouse with Scroll.	
Tower Casing	Manufacturer Standard casing with standard Power Supply	
I/O Interfaces	Min six USB 2.0, two 3.0 ports, Min 2PCIe and 1 PCI slot, 1 RJ-45; 1 Serial; 1 VGA; 2 Display Port etc.	
O/System	Windows 7 Professional	

- Warranty : 03-Years

Laptops:

Quantity Required: 05 Sets (Reputable Foreign Brands Required)

LAPTOP:

Technical Specifications	Compliance (YES/NO)
<p><u>Laptops :</u></p> <ul style="list-style-type: none">-Processors: Intel 3rd generation Core i5-3317U Processor (3M Cache, up to 2.6 GHz, with UMA) or higher-Chipset: Mobile Intel HM76 Express Chipset-Graphics: Integrated-Memory: 4GB DDR3 1600MHz Memory-Networking: Gigabit Ethernet LAN 10/100-DVD Rom: Loading Tray DVD+/-RW-Hard Drives: 500GB 5400 RPM SATA HDD-Battery: 6-Cell lithium Ion (65WHr)-Power adaptor: 65W AC-Operating System : Windows 7/8-Wireless: Wi-fi & Bluetooth-Display: minimum 15.6 inches or higher LED Backlit display with TL & HDD resolution (1366x768) or better-Laptop Lock with Keys for protections and safety-Integrated Camera: 1.0 mega pixel widescreen HD resolution (1280x720)-Keyboard: Preferably Chic let keyboard with Touchpad or standard (English)-Standard Carrying Case-Sound: Stereo speakers & built-in digital microphone-8 in 1 Memory Card Reader: SD, SDHC, SDXC, MMC, MMC+, xD, MS..-Windows 7 /8 pre-installed	

- Warranty : 03-Years

LASER PRINTERS:

Quantity Required: 10 Sets (Reputable Foreign Brands Required)

LASER PRINTER:

SN	DESCRIPTION	Compliance (YES/NO)
1	Minimum Print Speed 30 PPM or higher, Resolution: 600 by 600 dpi or higher/1200 Image quality. 32 MB RAM, Network Ready, and Paper Handling: Legal, A4 & letter size paper. Paper Tray(s): Two paper trays minimum. Other standard features like LCD display, print cancel button etc. Drivers: Microsoft windows Xp/Vista/7/8 and Linux supportive. Along with USB 2.0 cable.	

- Warranty : 03-Years

FAX Machine with Scanners (3 in 1):

Quantity Required: 02 Sets (Reputable Foreign Brands Required)

Specification / Description	Parameters Required	Compliance (Yes/No)
3 in 1, Printer, FAX, Scanner		
Print speed black (normal, A4)	Up to 18 ppm or better	
Print technology	Laser	
Print quality black	Up to 600 x 600 dpi or better	
Paper handling input, standard	input tray	
Envelope feeder	No	
Finished output handling	Roll feed	
Media sizes supported	A4; A5; ISO B5; ISO C5; ISO C5/6; ISO C6; ISO DL; 16K; European postcard	
FAX Support	YES	
Document Scanner	YES	

- Warranty : 03-Years

Annexure – (S-16)

Photo Copier Machines:

Quantity Required: 02 Sets (Reputable Foreign Brands Required)

Specification / Description	Compliance (Yes/No)
Copy Speed = 60/65 CPM or better	
Multiple copy = Minimum 999	
Warm up time = 30 seconds or better	
Resolution = Output: 1200 dpi, Scan: 600 dpi or better	
Printing Type : Mono	
Zoom= 25-400 % (in 1% steps) or better	
Built in RADF(Reverse Automatic Document Feeder)	
RAM = 2GB or more	
Hard Disk = 60 GB or more	
Paper size = A6-A3 minimum	
Duplex: 64-128 g/m2 or better	
Dup-lexing=standard	
Power source= 220-240V, 50/60Hz	
With finisher and sorter	

- Warranty : 03-Years

Bio Metric scanner – For Attendance ,Access control, Prisoner Registration, Visitor’s data record, Bar Code NIC reader, Digital Camera etc:

Specification / Description	Quantity
BIO METRIC Reader	
Biometric device for Bio Metric (Fingerprint)& RFID Cards Reader and PIN	6-Sets
Matching speed less 1 Second.	
Record capacity 20,000 on device, with keypad, LCD.	
Communication Interface: TCP/IP, RS232, RS485	
Reader Port: 26 bit Wigand, Door Control Interface	
13.56MHz Contact Less Smart Card	
User Capacity Minimum 1500 Users	
Exit RFID Reader with 10cm Range	
RFID Cards with printing and Lanyards and Plastic pouch	1500 sets
Software for Access Control / Time Attendance for minimum 1500 Users / Employees	1 Software
Dead Bolt Locks for Doors with Fitting Accessories	4-sets
Digital HD Cameras minimum 18 mega pixel and optical Zoom with memory cards and standard accessories	2-Nos
Bar code reader/scanner capable National ID card with required software lic.	2-sets

- Warranty : 03-Years

Annexure – (S-18)

Electric Siren (Heavy Duty):

Quantity Required: 10 Sets

Specification / Description	Compliance (Yes/No)
Motor: AC 220 Single Phase 2HP	
Double Side	
One Sound Siren	
Weather & Water proof Body	
Can Work in Extreme Climate Conditions	
RED / Chrome Color Finish	
With Mounting & Canopy	
With Electrical Controller	
Under Over Volt protection	
Over Load Protection	
Earth Leakage Protection	
With all cables and fitting accessories	

- Warranty : 03-Years

Annexure – (S-19)

Hand Driven Siren (Heavy Duty):

Quantity Required: 10 Sets

Specification / Description	Compliance (Yes/No)
Hand operated air-raid siren :	
Sound Rating: 110±2dB @ 01-Meter	
Output Frequency: 550±20Hz	
Single Tone	
Rust-Free Material	
Red / Chrome Color	
Mounted on a Stand	
Handle With Slip free Grip	
Outdoor type	
with all cables and fitting accessories	

- Warranty : 03-Years

Addressable Fire/Smoke Detection System:

Complete System: 01

Specification / Description	Compliance (Yes/No)
Main control panel (addressable) (qty : 01)	
1-4 loop, expandable by loop cards	
Minimum 20 zone LED	
Minimum 250 programmable zones	
Language: English	
Real time clock	
More than 3000 entry event log	
Character zone text	
Zone or device disablement	
2 x conventional sounder circuits	
Aux 24v supply	
Minimum 1 x fire relay	
Minimum 1 x fault relay	
Outputs programmable by zones	
Can be configured via pc or via panel	
Compatible with analogue addressable field devices, like:	
Optical smoke detectors	
Heat detectors	
Optical-heat combined detectors	
Addressable call points	
Addressable sounders / flashers	
Addressable beam detector	
Input / input-output interfaces	
Sounder control interface	
Zone monitor interface	
Remote LEDs	
Sounder bases	
Smoke detector (addressable) (qty : 50)	
Operating voltage 17-28vdc	
Operating temperature -20 to 60°c	
Detector class optical smoke	
Max. Humidity 95%rh non condensing	

Max. Wind power not affected	
Atmospheric pressure not affected	
IP rating 43	
Coverage 100m ²	
Alarm current 2ma	
Heat detector (addressable) (qty : 5)	
Operating voltage 17-28vdc	
Operating temperature -20 to +50°c -20 to + 80°c	
Min. Continuous temp. 0°c	
Returns value of 55 at 55 °c 90 °c	
Detector class as CS	
Max. Humidity 95%rh non condensing	
Max. Wind speed not affected	
Atmospheric	
Pressure not affected	
IP rating 43	
Coverage 50m ²	
Alarm current 2ma	
Call point (addressable) (qty : 5)	
Input voltage 17-28v dc	
Element type reset-able	
Alarm current 2.3ma maximum	
Operating temperature -20 degrees c to +60 degrees c	
Max humidity 95%rh non-condensing	
IP rating ip67	
Addressable sounder (qty : 5)	
Minimum sound output 85 db @ 1 meter	
Alarm tone intermittent tone - 800-970hz (0.5s each) or better	
Pulsed tone – 970hz (0.5s on, 0.5s off)	
Maximum sounders per loop 64 or more	
Operating voltage 17-30v dc	
Alarm current 5.5 ma or equivalent	
Maximum cable size 2.5mm ²	
OPERATING TEMPERATURE 0°c TO 40°c	
Maximum humidity 95% RH non condensing	
IP protection rating ip43	

Flasher light (addressable) (qty : 5)	
Colour red	
Supply voltage 17-33v or better	
Sound output 94db	
Flasher red led – 2hz	
Operating temp. 0°c to 50°c	
Max. Humidity 95% RH n/c	
IP rating IP 65	
CABLES and accessories:	
2-Core Fire resist cable required for the system	1000 MTRS
Fire resistant appropriate power cable (Make: Pakistan, Newage, FAST, FR)	1000 MTRS

- Warranty : 03-Years

Fire Extinguisher Cylinders with accessories:

Quantity : 70- Nos.

Specification / Description	Compliance (Yes/No)
Hand Held Fire Extinguisher Cylinder	
Type: DCP (Dry Chemical Powder)	
Capacity : 8KG	
Working Pressure Minimum 1.2Mpa	
Effective bulk range of Discharge Minimum 5 meter	
Effective Discharge Time minimum 12-14 Seconds	
Operating Temp : -20 to +55 Degree Celsius	
With Pressure Gauge	
Wall Mounting Bracket	
Spay Hose & Nozzle	

Quantity : 40- Nos.

Specification / Description	Compliance (Yes/No)
Hand Held Fire Extinguisher Cylinder	
Type: CO2 (Carbon Di Oxide)	
Capacity: 7Kg/L	
Effective bulk range of Discharge Minimum 2 meter	
Effective Discharge Time minimum 7-8 Seconds	
Operating Temp : -10 to +55 Degree Celsius	
With Pressure Gauge	
Wall Mounting Bracket	
Spay Hose & Nozzle	

Hydraulic Road Blocker :

Quantity Required: 04 Sets

Specification / Description	Compliance (Yes/No)
12 feet Hydraulically operated Road Blocker	
K-12 Crash rating (Test report required)	
600mm to 650mm (26 inch) raised obstacle height	
Manufactured from 6mm Angle Iron frame & 6mm	
Top Plate 6mm chequered Plate	
Capable of withstanding axle weight of 10-20 tons	
Operating Power supply of 3 phase 5.5hp motor minimum	
Hydraulic Power Pack Fully Imported parts	
With Over Pressure Safety	
Reverse / Back Pressure Safety	
Manual Pressure release operation (Emergency lower)	
Hydraulic Oil Fillers	
Air Breathers	
Oil temperature Gauge	
Oil Level Gauge	
Pressure Gauge / Indications	
Operating times of 4 ~ 6 seconds	
Microcontroller Based / PLC Based Electrical Controller	
With following features	
-Phase Failure Safety	
-Phase Sequence Safety	
-Under Volt / Over Volt Protection	
-Overload Protection	
-Low Oil Level in Hydraulic Tank Protection	
-Panel Humidity Reduction System	
-Panel Cooling System	
-Dust Proof Weather proof Enclosure for Controller Panel	
Panel Must Display / Indicate following Signals	
-All Phase Indications	
-Rotary Switch Based Volt Meter for All voltages combinations	
-Amp. Meter for system load monitoring	
-Blocker UP (RED) , Down (GREEN) Indications	

-Fault / Error Indication with Flashing LED and beep together	
-Operation Counter (Optional)	
-Oil Change Alert	
-Integrate-able with Access Control Units and Interlocking with other Machines (e.g. Auto Gate, Boom Barriers etc.)	
-Online reporting and Alarms (Optional)	
Anti Rust Paint in Red & White / Yellow & Black	
IP 67 Enclosure	
Rain Water Drainage System	
Complete Installation and Good Civil Work	

- Warranty : 03-Years

Annexure – (S-23)

Tyre Killer (Manual):

Quantity Required: 10 ft Lengths

Total :80 Ft

Specification / Description	Compliance (Yes/No)
One Way Traffic Control Tyre Blaster	
Fabricated from 9mm Mild Steel Sections	
Spike Size minimum 7" with Sharp edge	
Clean-out Serviceable Structure design	
Galvanized / Corrosion Resistant Paint	
"Go Slow" and "NO ENTRY" Sing Boards with 7ft POLE	
Complete fitting and accessories	

- Warranty : 03-Years

Automated Barriers (Heavy Duty) for Gates with accessories :

Quantity Required: 04-Set

Specification / Description	Compliance (Yes/No)
Automatic Road Barrier	
Electromechanical barrier designed for use at entrances	
Line Voltage V. AC 230 or better	
Motor Power Supply V. DC 24 or better	
Max Input Current (24Vdc)	
Nominal Torque : Nm 260 or better	
Opening Time Sec.: 5-6 or better	
Movement Irreversible	
Max. Angle of Rotation : Deg. 90	
Operating Temperature C -10 to +70	
Motor Grease type	
Working Intermittence: %50 or better	
Max. Bar Length Meter 4.25 with Bi Directional Reflector Colored	
-Support foot	
-Wireless remote control System	
-Interlocking Control Unit	

- Warranty : 03-Years

Under Vehicle Inspection / Scanning System with accessories:

Quantity Required: 02-Set

Specification / Description	Compliance (Yes/No)
1 No. of 3.0 Megapixel Full HD 360 Degree Camera for Under Vehicle View with Fisheye Lens & Vandal Housing	
2 Nos. of Full HD Box Network Cameras for Driver & License Plate View with 5~50mm Lens	
Capable to connect IP network for parallel Recoding on Remote server NVR for local Location Recording minimum 4 ch. And minimum 1-TB storage and support above cameras	
<ul style="list-style-type: none"> • Concrete / RAMP 2 PCS • Steel Heavy Duty Ramp Unit to accommodate the Vehicle Tires • 8mm checker sheet • Galvanized or anti rust yellow paint • Zero maintenance • Weight Load : support minimum 20-Tons 	
Camera Enclosure with 2 pcs of IR LED Lights: <ul style="list-style-type: none"> • Waterproof sealed box for 01 Cameras and 02 IR Lights, 03 Glass Rings duly sealed. • Galvanized Steel Material • Rust Proof • Thoroughly Scan even the Large Size Vehicles 	
Video Monitoring & Recording Software for Under Vehicle Cameras: Software must be integrated with Central Control Room Software, Local Monitoring & Recording of UVSS Cameras, Multi Chanel View, High Resolution Recording of Selected License Plates & Faces of Drivers with Multi Crop Streaming. High Light Compensation against Illuminated Light, Privacy Masking Function against undesired Area.	

- Warranty : 03-Years

Annexure – (S-26)

Search Lights (Heavy Duty) with accessories :

Quantity Required: 50 -Set

Specification / Description	Compliance (Yes/No)
250 watt flood light , SON - T lamp,	
Igniter, capacitor, ballast complete with connection	
Working Voltages : 220V AC	
Water proof Body , Outdoor	
With Connection Box	
Make : USA/EU principal manufacturer	

- Warranty : 03-Years

Annexure – (S-27)

Emergency lights (Heavy Duty) with accessories :

Quantity Required: 50 -Set

Specification / Description	Compliance (Yes/No)
90-100 LED rechargeable Emergency Light	
With Lead Acid battery	
Backup time minimum 6-7 Hrs	
Body made of ABC Material (Acrylonitrile butadiene styrene)	
auto manual operation button	

- Warranty : 03-Years

Spot Lights – Handheld - (Heavy Duty) with accessories:

Quantity Required: 20 -Set

Specification / Description	Compliance (Yes/No)
Ultra Bright Rechargeable LED Spotlight (branded)	
8Hrs runtime on the low-brightness setting	
4hours on the high-brightness setting (450 lumens)	
Built-in rechargeable battery	
AC/DC power adapter	
Durable, lightweight, water-resistant materials	
Easy-grip handle plus resting stand and Shoulder Strap	
Minimum Range 2/3 KM	
With all fittings and accessories	

- Warranty : 03-Years

Service Level Agreement – Scope of Work

- 1- The total time of Service Level Agreement contract will be for Maximum for 36-months started from the date of completion of the respective site/jail. *(Time may increase/decrease)*
- 2- Prices Quoted for monthly basis in 3 options as:
 - a. First Year
 - b. Second Year
 - c. Third Year
- 3- The payment of SLA will be made on Monthly basis;
- 4- The Purchaser have full rights to Terminate the contract / agreement anytime time with or without any reason by given prior 01-month written notice.
- 5- Complete available equipment list along with model, manufacturer, quantity and technical details will be sign off in the contract.
- 6- The Contractor will be deemed to satisfy himself about scope of the work as per the equipment and software provided by the vendor.
- 7- The purchaser will provide access to the authorized staff deputed by the Contractor for performance of his obligations to all the equipment for operations and maintenance at the time of signoff contract in working condition;
- 8- The parts for the maintenance are not inclusive in the SLA contract and all the required parts for SLA and maintenance will be provided by the Prison Department as per requirements and procedures.
- 9- A separate Contract & PO will be issued for SLA, based on authorities approvals and requirements *(Pre/post completion of the project)*
- 10- Service level agreement include maintenance, services, support and keep system updated and in running conditions 24x7x365 at the jail with resident staff of bidder

-Maintenance

Vendor will provide comprehensive maintenance services for supported machines Comprehensive maintenance per year will typically be performed on each supported machine and software, and minor maintenance may be performed more frequently. Operations that may be performed as part of maintenance

A full maintenance will typically require, depending on what tasks need to be performed. Periodic Maintenance is always scheduled in advance.

-Troubleshooting

Vendor will troubleshoot problems with supported operating systems, diagnostic tools, software applications, required tools and network connectivity. Vendor will also perform basic hardware troubleshooting.

-Application / software support

Vendor will provide applications support which may include the following services:

- Installation and updating of software.
- Troubleshooting of common problems.
- Help with basic usage.
- Vendor will provide no support for discouraged or prohibited applications by the Purchaser.
- Support for the centralized administrative applications is limited to support.
- Utilize manuals, online help systems, training CD-ROMs, and other training resources for the applications.
- Purchaser will be responsible for purchasing software licenses and having media available (if required).
- Customization / minor changes based on the requirement or Govt policies or any other reason will be provide at the site

-Backup support

Vendor will provide installation and configuration of backup H/ware & software. The backup service itself is provided by Vendor and in addition to that Vendor's staff can assist with restores and act as a liaison with users.

-Hardware support

Vendor will provides hardware diagnosis for supported machines. In addition, Vendor will provide post-warranty work in many cases as well. Vendor staff will perform some basic hardware upgrades at no charge, subject to Hardware supplied by the Purchaser; these services would include installing PCI cards and upgrading RAM etc. Purchaser will consult with vendor or vice versa.

-Training

Vendor provides trained resources to support Purchaser users. Vendor's staff can evaluate computer training needs for supported users and provide specific recommendations for training classes or materials.

In addition, Vendor can provide informal training sessions on supported software for individuals (or small groups). In some cases, Vendor's staff may provide formal group training for users.

-via Service Desk support

To request support services the User send electronic mail to the appropriate support team's service desk email address XXXXXXXX@xxxxxxx.xxx In cases in which email is not operational, user may call the Service Desk at XXX-XXXXXXX / XXX-XXXXXXX.

Response time

Vendor's goal is to respond to all requests for service as quickly as possible. Vendor prioritizes requests as they come in using the following general guidelines:

- **Urgent** requests are those that meet one or more of the following criteria:
 - Top Management / key personals
 - Multiple users are affected.
 - The user's computer is not functional.
 - The network is inaccessible.
 - The user is working under a deadline or on a time sensitive task.
 - The problem is with software that is vital to the nature of the user's work.
 - The user is unable to send or receive email.
 - The security of one or more machines is compromised.

- **Normal/Planned** : requests typically fall into the following categories:
 - The request is specified as non-urgent by the users.
 - The request involves peripheral equipment
 - The user is experiencing an application problem that does not interfere with critical functions.

Penalty Implications and clauses:

The vendor will be responsible to an overall uptime of 90 percent+. The purchaser will deduct up to 10 percent service contract /PO amount, if agreed uptime is not met.

Availability excludes the annual maintenance agreed upon maintenance time and takes into account any manufacturer's response time for equipment delivery.

Any delays or downtime due to non-availability of Parts (responsibility of purchaser to be provided to the Vendor) will not count into downtime Percentage and will be counted into Purchaser account. However, Vendor is responsible to inform Purchaser for the requirements of parts well before time to make possible availability of parts on time.

Reporting

Uptime reporting on all systems will be provided to the purchaser on monthly basis duly signed by authorized representative of the purchaser.

Root cause for any outage will be provided to the Purchaser along with monthly reports.

The Vendor monitoring system will be used to monitor all/mostly devices and produce the uptime report.

If the Vendor is not able to maintain 95 percent availability, up to 10 percent amount will be deducted from the invoice or any other monies due to the Contractor. These deductions will be applied on the invoice subsequent to the monthly uptime analysis.

Scheduled Maintenance Times:

During scheduled maintenance the equipment and related services may be unavailable.

Any unscheduled maintenance will be communicated to and agreed upon with the Purchaser at least 24-48 hours prior to the event.

Any service affecting maintenance beyond the Vendor's control will not count against the uptime commitment for the Purchaser

RESIDENT SUPPORTING STAFF PLAN FOR 24/7 HOURS 365 DAYS AT JAIL:

(SAMPLE ONLY, BIDDER HAS PROPOSED OWN SUPPORT STAFF PLAN)

(Proposed by vendor) Staff for IT and Security Equipment ;				
Sr. No.	Staff Category	Shift - A	Shift –B	Shift – C
01.	Technical Supervisor / Manager	01	01	01
02.	Support Engineers (Specialized and hands-on Experience In CCTV system, LAN Switches, UPS, Security Items, Computers, Hardware , Software support etc ..)	01 / 02 / ??	01 / 02 / ??	01 / 02 / ??
03.	Support Staff others..	01 / ??	/01 / ??	01/ ??
04.	Electrical / Electronics Tech. Staff	??	??	??
05.	???	??	??	??
06.	???	??	??	??
Total				

-Dedicated Staff with necessary tools and supporting available inside the purchaser's building for 24/7 365 days support to Purchaser;

-Bidder must be provide CV and preliminary interviews of Proposed staff to Purchaser for acceptance and security clearance etc formalities