

## Annexure 7

### Indicative Specifications: Client Side Computing Infrastructure

#### 1. Desktop

Sl. No.	Make & Model - (To be filled by the Supplier)	Complied / Not Complied
1.	Processor: Core i5-650 processor (3.20 GHz) with Q57 Chipset or higher	
2.	Memory Type: 2 GB DDR-III @ 1066 MHZ or higher	
3.	Memory Slot: 4 DIMM Slots	
4.	Internal Hard Disk/Speed: 250 GB SATA (7200 RPM) or higher	
5.	Optical Drive: SATA Super Multi Light Scribe DVD Writer Drive	
6.	Display size: 18.5" TFT or more (4:3 aspect ratio) LCD Monitor 1280 x 1024 resolution with 5 ms or better response time, TCO 05 certified	
7.	Graphics Controller: Intel Graphics Media Accelerator 4500 integrated graphics	
8.	Form Factor: Convertible Minitower	
9.	External I/O ports: Rear: 6 USB 2.0, 1 standard serial port, 1 optional serial port, 1 optional parallel port, 2 PS/2, 1 RJ-45, 1 VGA, 1 Display Port, audio in/out; Front: 2 USB 2.0, headphone and microphone	
10.	Expansion slots: 3 full-height PCI, 1 full-height PCI Express x1, 2 full-height PCI Express x16	
11.	Network interface: Integrated Intel 82567LM Gigabit Network Connection	
12.	Power requirements: Input voltage 90 - 264 / 100 - 240 VAC, 50/60 Hz, 47 - 63 Hz, active PFC (85% High Efficiency)	
13.	Management: Desktop Management Tool	
14.	Bilingual Keyboard: PS/2 or USB Standard Keyboard	
15.	Pointing device: USB 2-Button Optical Scroll Mouse	
16.	Security management: TPM 1.2 TPM Security Chip (except for Russia), TPM Pre-Boot Authentication (via BIOS), Smartcard Pre-boot Authentication (via BIOS), Stringent Security (via BIOS), SATA port disablement (via BIOS), Serial, Parallel, USB Enable/Disable (via BIOS), Removable Media	
17.	Write/Boot Control, Power-On Password (via BIOS), Setup Password (via BIOS)	
18.	OS Support & Certification: Windows 7 / Linux /Centos 5.5 /Ubuntu (As per proposed solution stack by the System Integrator)	

19.	Preloaded Software: Above configuration preloaded with OS (Latest Version) with Odiya Language packs, Office Suite with Odiya Unicode fonts, Antivirus with all necessary Plugins/ utilities and driver software including bundled in DVD Media. For the four desktops in each Police Station, One should have MS Office and other three should have open office preloaded.	
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## 2. 160 GB External USB Hard disk

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	Capacity	Minimum 160 GB	
2.	Connectivity	Hi-speed USB2.0	
3.	Operating System Supported	Windows XP/Windows Vista /Windows7/ /Linux Red hat /Ubuntu	
4.	Accessories:	Drive should be supplied with cables, necessary driver and software, Base stand and attachable feet.	

## 3. Multi-Function printer (MFP: Print, Scan, Copy)

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	Print speed, black	Up to 18 ppm	
2.	Print resolution, black	Up to 600 x 600 dpi	
3.	Print technology	Laser	
4.	Monthly duty cycle	Up to 8000 pages	
5.	Memory, standard	64 MB	
6.	Print languages, standard	Host-based printing, PCL 5e	
7.	Duplex printing (printing on both sides of paper)	Manual (driver support)	
8.	Media sizes, standard	Letter, legal, executive, postcards, envelopes (No. 10, Monarch)	
9.	Media sizes, custom	250-sheet input tray: 5.8 x 8.27 to 8.5 x 14 in; priority feed slot: 3 x 5 to 8.5 x 14 in	
10.	Media types	Paper (laser, plain, photo, rough, vellum), envelopes, labels, cardstock, transparencies, postcards	
11.	Scanner type	Flatbed, ADF	

Sr. No.	Parameters	Specifications	Complied / Not Complied
12.	Scan resolution, optical	Up to 1200 dpi	
13.	Scan size	8.5 x 11.7 in	
14.	Scan speed	Up to 6ppm	
15.	Supported file formats	PDF; TIF; BMP; GIF; JPG	
16.	Copy resolution	Up to 600x 400 dpi	
17.	Maximum number of copies	Up to 99 copies	
18.	Accessories included	USB cable , Driver CD ,Utility software , UTP patch cable & One printing cartridge	
19.	Connectivity	Hi-Speed USB 2.0 port; 10/100Base-T Ethernet network port	
20.	Network ready	Standard (built-in Ethernet)	
21.	Power consumption	<=450 watts	
22.	Power Consumption (Standby)	<=2.2 watts	
23.	Operating temperature range	50 to 90F	
24.	ENERGY STAR® Qualified	Yes	

#### 4. Laser Jet Network Printer (Duplex)

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	Print speed, black	Up to 26 ppm	
2.	Print resolution, black	Up to 600 x 600 x 2 dpi	
3.	Print technology	Laser	
4.	Monthly duty cycle	Up to 8000 pages	
5.	Memory, standard	32 MB	
6.	Print languages, standard	Host-based printing, PCL 5e	
7.	Duplex printing (printing on both sides of paper)	Automatic (standard)	
8.	Media sizes, standard	Letter, legal, executive, postcards, envelopes (No. 10, Monarch)	
9.	Media sizes, custom	250-sheet input tray: 5.8 x 8.27 to 8.5 x 14 in; priority feed slot: 3 x 5 to 8.5 x 14 in	
10.	Media types	Paper (laser, plain, photo, rough, vellum), envelopes, labels, cardstock, transparencies,	

Sr. No.	Parameters	Specifications	Complied / Not Complied
		postcards	
11.	Accessories included	USB cable , Driver CD ,Utility software ,Cat5/6 UTP patch cable & One printing cartridge	
12.	Network ready	Standard (built-in Ethernet)	
13.	Power consumption	<=450 watts	
14.	Power Consumption (Standby)	<=2.2 watts	
15.	Operating temperature range	63.5 to 77° F	
16.	ENERGY STAR® Qualified	Yes	

### 5. Technical specifications for on-line ups (2kva) single phase input & single phase output

SL	Parameters	Specifications	Complied / Not Complied
1	Capacity	<b>2KVA</b>	
	Battery Backup	<b>120minutes</b>	
<b>2</b>	<b>General</b>		
	Inverter Technology	Pulse Width Modulation (PWM) using IGBTs, double conversion	
	Switching frequency	20 KHz or higher	
	Total Harmonic Distortion (THD) Voltage	< 2% for 100% linear load < 3% for 100% non-linear load	
	Noise level	Less than 55 dB	
	Operating Temperature	0°- 50° C	
	Output Wave Form	Pure sine wave	
	Cooling	Air Cooled	
<b>3</b>	<b>Input</b>		
	Voltage Range	160 V AC to 280 V AC	
	Frequency range	50 ± 6% Hz	
	D/G set comp ability	Required	
	Input Power Factor	0.9 or better at full output load leading to Unity with power factor correction (PFC)	
<b>4</b>	<b>Output</b>		
	Voltage	230V AC +1 %, single phase	
	Regulation	Less than + 1% in the following conditions 1. No load to full load/Full load to no load 2. 0.6 lag to Unity PF 3. During Entire Backup time. 4. Complete Input Voltage Range	
	Frequency	50 Hz + 0.5 %	
<b>5</b>	<b>Efficiency</b>		

SL	Parameters	Specifications	Complied / Not Complied
	Overall	Efficiency 80 % or better on rated full load of 0.8 PF & 230V, 50Hz AC output	
	Inverter Efficiency	90% or better on rated full load of 0.8 PF & 230V, 50Hz AC output	
6	Overload Capacity	110% for 2 min. & 125% overload for 30sec.	
7	Load Power Factor	0.8 lagging	
8	Protection	Required for : Short Circuits / Over Loading/ Over Temperature / Input low/ high voltage control/ DC low/high voltage trip	
9	<b>Battery Make</b>	Complying with JIS C 8702 test.	
	Battery recharge time (after complete discharge to 100% charge) & charge rating	Battery recharge time should not exceed 8 hours and charger should be capable to charge battery on C10 rating.	
11	<b>Battery Capacity</b>		
	Capacity of UPS	D.C.Bus Voltage	Battery Bank for Back-up Time
	2KVA	≤192 V	60minutes
	UPS & Battery Housing	Powder coated UPS & battery cabinet with caster wheel should be of minimum 1mm thick good quality material and should be free from sharp edge, scratches, nicks, & burs etc. Enclosure should conform to protection requirement of IP2L1 to IS13947 (Part 1)/1993 (reaffirmed 2004).	
12	L.C.D. meter	To measure and monitor input voltage, output voltage, output current, DC current, DC voltage, input / output frequency	
13	Indications	Mains on/ Load on Battery/ Inverter/ Battery level/ Load level/ Inverter over load	
14	Audible Alarm	Over Temperature / Main failure/ Battery low/ Inverter Overload	
15	Switches	Main ON/OFF MCB/ Battery ON/OFF MCB/ Inverter push button with reset.	
16	Output Connection	O/P Terminals of standard quality should be provided. 03 Nos. of 5/15A/230V female ISI/ IEC Mark socket and all 3 sockets should	
17	Isolation Transformer	<b>Galvanic Isolation through Transformer</b>	
<b>Note -More than two battery banks should not be used in parallel in the configuration.</b>			

## 6. Diesel generators 2kva

S. No	Parameter	Required Specifications	Complied / Not Complied
	The proposed DG set should be able to support the Police Unit equipment along with AC, in absence of primary power source. Engine shall be vertical multi cylinder 4 stroke type in accordance with IS10002-1981 with latest amendments.		
1	<b>CAPACITY</b>	2KVA	
2	<b>ENGINE:</b>		
	Type	Multi cylinder	
	Method of starting	Electric start 12 V DC	
	Type of cooling	Water cooled /Air cooled	
	Type of governor:	Mechanical/Electronic	
	Type of fuel:	High speed diesel	
	Rating:	Continuous	
	Output:	Suitable HP rated	
	Alternator rated speed:	1500 RPM	
	Over load capacity	10% overload - minimum 1 hour	
3	<b>ACCESSORIES</b>		
		<ul style="list-style-type: none"> <li>• Flywheel to suitable diameter and fuel injection equipment</li> <li>• Air cleaner</li> <li>• Lubricating oil cooler</li> <li>• Electric motor starting equipment like motor, battery, charging generator with voltage regulator etc.</li> <li>• Heavy duty radiator with fan</li> <li>• Residential type silencer with exhaust piping with vibration isolator</li> <li>• Fuel tank suitable for 8 Hrs of continuous running with necessary piping and fuel gauge, drain valve, inlet and outlet connections.</li> <li>• Anti vibration mounting pads (Dunlop)</li> <li>• Speed controlling governor</li> <li>• Suitable coupling system to the Alternator</li> <li>• Tachometer</li> <li>• Lubricating oil pressure gauge</li> <li>• Hour meter to indicate number of Hrs of operation</li> <li>• Auto trip on low oil pressure</li> <li>• Over speed alarm with trip</li> <li>• Thermal insulation for exhaust line with glass wool, Aluminium sheet, chicken mesh, Diesel line 12 mm</li> </ul>	

		dia including beads flanger etc <ul style="list-style-type: none"> <li>• Battery 12 V with lead and terminal</li> <li>• Battery charger.</li> <li>• Protection: Protection against low lubricating oil pressure, high water temperature and over speed shall be provided for engine with alarm and fuel shut off.</li> </ul>	
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## 7. 16 Port Unmanaged Switch

Sr .No	Parameters	Specifications	Complied / Not Complied
1.	Network Ports	The switch should have minimum 16 x 100/1000 Mbps Ports	
		UTP RJ-45 ports	
2.	Protocol	CSMA/CD	
3.	Standards Compliance	IEEE 802.3 10 Base-T Ethernet	
		IEEE 802.3u 100BASE-TX Fast Ethernet	
		IEEE/ANSI 802.3 Auto Negotiation	
		IEEE 802.3x Full duplex Flow Control	
4.	Data Transfer Rates	Ethernet 10 Mbps(Half-duplex ,20 Mbps Full duplex)	
		Fast Ethernet 100 Mbps(Half Duplex), 200 Mbps(Full-Duplex)	
5.	Performance Specifications	Bandwidth: 3.2 Gbps or above	
		Mac Address Database 4k	
6.	Power Supply	100V-240VAC	

## 8. Finger Print Reader

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	Sensor Type	Optoelectronic	
2.	Prism Architecture	Dual Prism	
3.	Size of window	18mm x 22mm minimum	
4.	Glass thickness	25mm	
5.	Resolution	Minimum 500 PPI or above	
6.	Image grey scale	256 level Dynamic	
7.	Scanning time	0.01Sec.	
8.	Distortion rate	0.1%	
9.	Computer interface	USB2.0 , USB Powered	

Sr. No.	Parameters	Specifications	Complied / Not Complied
10.	Operating temperature	0 - 55 Degree C	
11.	Environmental humidity	Up to 90%	
12.	Optical /Film Coating	Hygroscopic	
13.	Operating system Support	Window XP / Vista / 7 / Linux	
14.	Certifications	FBI Standard CJIS-RS-0010 (V7), IAFIS Image Quality Specifications (IQS) for Scanners, MIL-STD-810F, FBI PIV-071006, FIPS 201 PIV, FCC, CE, RoHS Compliant	
15.	Standards	ANSI/NIST /ISO Biometric Standards	

### 9. Digital Camera

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	<b>Pixels (Min.)</b>	8 megapixels or higher	
2.	<b>LCD Monitor Type</b>	TFT	
3.	<b>Display Size</b>	2.7 inches or higher	
4.	<b>Recording Media</b>	SD memory card/ SDHC memory Card/SDXC memory card/ Multimedia Card	
5.	<b>Recording Format</b>	JPEG	
6.	<b>Zoom</b>	3X or higher	
7.	<b>ISO Sensitivity Setting</b>	Auto / 80 / 100 / 200 / 400 / 800 / 1600 / High	
8.	<b>Optical Zoom During Movie Recording</b>	Yes	
9.	<b>Auto Focus Range</b>	Approx.: (W)=3 cm to infinity, (T)= 80 cm to infinity	
10.	<b>Shooting Modes</b>	Auto, Portrait, Landscape, Night Snapshot, Indoor, Face self-timer, Low Light, Beach, Underwater, Foliage, Snow, Fireworks, Long Shutter, Movie, Documents	
11.	<b>White Balance</b>	Auto / Daylight / Cloudy / Fluorescent / Incandescent / Flash	
12.	<b>Flash Function</b>	Auto/ Red Eye Reduction/Off/Face detection/noise reduction	
13.	<b>USB Connectivity</b>	Yes (Hi- Speed)	
14.	<b>Battery Backup</b>	120 Min / 200 shots or above	
15.	<b>Operating system Support</b>	Window XP / Vista / 7/ Linux	



### 10. Technical Specifications Electronic Pen

Sr. No.	Parameters	Specifications	Complied / Not Complied
1.	Data communication	USB 1.1 standard (also supports USB 2.G standard), Bluetooth 1.2 standard	
2.	Built-in battery	Rechargeable battery	
3.	Continuous writing time	2 hours or longer Standby time:1 hours (min.) without a cap	
4.	Charging time	Approx. 2 hours (from 0 to100% charge)	
5.	Charging method	Dox cradle or USB adapter	
6.	Operating system Support	Window XP / Vista / 7/ Linux	
7.	Digital Pad Size	336mm * 245 mm	
8.	Pad Writing Area	210mm * 279 mm	
9.	Notepad Holder	210mm* 300 mm	
10.	Built-in Memory	32 mb or more	
11.	Memory Slot	Secure Digital	
12.	Pen Size	134mm * 11.3 mm (diameter)	
13.	Digital Page File	DHW, DND	