

F.No. 03-01/GA/2019-20/FSSAI  
Food Safety And Standards Authority Of India  
(A Statutory Regulatory Authority of Govt of India)  
Ministry of Health and Family Welfare  
FDA Bhawan, Kotla Road, New Delhi-110 002

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Dated the 14 Oct, 2019

**ADDENDUM / CORRIGENDUM**

**To The RFP for selection of suitable contractor for 'Supply, Installation, Testing and Commissioning of CCTV Surveillance System in FDA Bhawan, Kotla Road, New Delhi**

An Open Tender Enquiry was floated vide RFP dated 4<sup>th</sup> Oct, 2019 published on FSSAI website and CPP Portal on same date viz 04-10-2019 for the subject work.

2. As per terms and conditions laid down in tender document, a pre bid meeting was held on 10-10-2019 at 1100 hrs.
3. During the pre-bid meeting seven bidders i.e. M/s Cyber Soft, M/s CBC Gang, M/s ANG India Ltd, M/s Unique Corpn, M/s Turbo Consultancy Services (P) Ltd. M/s Smart Enterprises, and M/s Guru Consulting through their representatives raised various points/observations for favourable consideration relating to RFP/Tender inquiry. All the points were duly responded and Minutes of the pre-bid meeting are published separately on FSSAI website [www.fssai.gov.in](http://www.fssai.gov.in) for information of all concerned.
4. Based on the discussions, certain changes in few items and their quantities are made and all specifications/makes mentioned below as Annexure-X for reference and submission with technical bid. **Revised BoQ i.e. price/financial bid format (Annexure-5) of the Tender document is attached separately which should be used for submitting financial bid by the interested bidding agencies.**
5. All other terms and conditions mentioned remains unchanged in the subject RFP. **Bidders may carefully go through the changes and submit their bids accordingly, any ignorance/lack of understanding or confusion will not be considered as leverage or weight age at the time of evaluation of bids.**

(Ravinder Kumar)  
Asstt Dir (GA)  
For Head (GA & Legal)

**LIST OF APPROVED MAKES**

<b>S. NO.</b>	<b>EQUIPMENTS</b>	<b>APPROVED BRANDS</b>
01	Bullet Fix lens Cameras	Pelco / CBC Ganz/ Axis
02	Dome Fix Lens Camera	Pelco / CBC Ganz/ Axis
03	Network Video Recorder	Pelco / CBC Ganz/ Axis
04	Surveillance Hard Disk	SEGATE, WD, TOSHIBA
05	(Layer 2) Lite Managed 8 port PoE Switch with 2 SFP	JUNIPER/DIGISOL/ HP/CISCO
06	(Layer 2) 24 port Switch	JUNIPER/DIGISOL/ HP/CISCO
07	43" LED TV	LG/PHILIPS/ SAMSUNG
08	Outdoor Rack 6U	RITTAL, NETRACK, APW, DATARACK
09	CAT 6 Cable	MOLEX/ D-LINK/DIGISOL/ AMP
10	CAT 6 Patch Cord 3 mtr.	MOLEX/ D-LINK/DIGISOL/ AMP
11	LIU Fully Loaded	D-LINK/ MOLEX/ DIGISOL/AMP
12	6 Core Single Mode Fiber Cable Armoured	MOLEX/ DIGISOL/AMP/ D-LINK
13	Fiber Patch Cord 1mtr	MOLEX/ DIGISOL/ AMP/D- LINK
14	PVC PIPE 25 MM	Medium ISI MARK

**EQUIPMENT SPECIFICATIONS**  
**Bullet Camera – Motorized Vari-focal Lens**

Sl. No.	Description	Specifications	Compliance (Yes/No)	Deviations, if any to be specified
	<b>Approved Makes Only</b>			
1	Model Number			
2	Resolution	2MP		
3	Image sensor	1/2. 7" Sony CMOS Progressive Scan		
4	Video Compression	H.265, H.264, M-JPEG		
5	Motorized Vari focal Lens	2.8 – 12 mm		
6	Streaming	Dual Stream		
7	Frame rate - Main Stream	1920 X 1080P@25 fps 1280 x 960P@25 fps 1280 x 720P@25 FPS		

8	Frame Rate - Sub Stream	704*576 @ 25FPS		
9	Shutter time	Auto/A.FLK/Manual		
10	Gain Control	Max, AGC to 255		
11	Wide Dynamic Range	DWDR		
12	Motion Detection	4 Area selectable support		
13	DNR	3DNR		
14	Minimum illumination	Colour: 0.01Lux, B/W: 0 Lux@ (IR ON)		
15	IR LED	SMT IR LED		
16	IR Range (Ft)	Up to 50M		
17	Day/Night	Auto		
18	White Balance	Auto White Balance (AWB)		
19	Alarm triggers	Motion detection		
23	Alarm Input / Output	1 In		
24	Audio Input / Output	1 In / 1 Out		
25	SD Card support	Support		
26	Network Interface	RJ45 for 10BASE-T/100BASE-TX PoE		
27	Power over Ethernet	IEEE 802.3af Class 2		
28	Supported protocols	All protocols required for surveillance system operations		
30	Operating Temperature	-10°C to +50°C		
31	Operating Humidity	0% to 90% (non-condensing)		
32	Power	PoE IEEE 802.3af Class 2 / DC12V		
33	Protection	IP67		
34	Material	Aluminium Dai Cast		
35	Certifications & Standards	BIS, EN, CE, FCC		
36	ONVIF Profiles	ONVIF Profile S Ver.2.4 or better		

### Dome Camera Fix Lens

<u>Sl. No.</u>	<u>Description</u>	<u>Specifications</u>	<u>Compliance (Yes/No)</u>	<u>Deviations</u>
	<b>Approved Makes Only</b>			
1	Model Number			
2	Resolution	2MP		
3	Image sensor	1/2. 7" Sony CMOS Progressive Scan		
4	Video Compression	H.264, M-JPEG		
5	Lens – Fixed	3.6mm		
6	Streaming	Dual Stream		
7	Frame rate - Main Stream	1920 X 1080P@25 fps 1280 x 960P@25 fps 1280 x 720P@25 FPS		
8	Frame Rate - Sub Stream	704*576 @ 25FPS		
9	Shutter time	Auto/A.FLK/Manual		
10	Gain Control	Max, AGC to 255		
11	Wide Dynamic Range	DWDR		
12	Motion Detection	4 Area selectable support		
13	DNR	3DNR		
14	Minimum illumination	Colour: 0.1Lux, B/W: 0 Lux@ (IR ON)		
15	IR LED	SMT IR LED		
16	IR Range (Ft)	Up to 30M		
17	Day/Night	Auto		
18	White Balance	Auto White Balance (AWB)		
19	Alarm triggers	Motion detection		
23	Alarm Input / Output	1 In		
24	Audio Input / Output	1 In / 1 Out		
25	SD Card support	Support		
26	Network Interface	RJ45 for 10BASE-T/100BASE-TX PoE		
27	Power over Ethernet	IEEE 802.3af Class 2		
28	Supported protocols	All protocols required for surveillance system operations		
30	Operating Temperature	-10°C to +50°C		
31	Operating Humidity	0% to 90% (non-condensing)		
32	Power	PoE IEEE 802.3af Class 2 / DC12V		
33	Protection	IP66		
34	Material	Aluminium Dai Cast		
35	Certifications & Standards	BIS, EN, CE, FCC		
36	ONVIF Profiles	ONVIF Profile S Ver.2.4 or better		

### Network Video Recorder

Sl. No.	Description	Specifications	Compliance (Yes/No)	Deviations
	<b>Approved Makes Only</b>			
1	Model Number			
2	CPU	Quad Core Processor		
3	Operating System	Embedded Linux / Windows 64 Bit		
4	Recording Channels	36 Channels		
5	Storage Capacity	9 SATA port (6TB Each) or 54TB Capacity		
6	E SATA	1 X e-SATA External Port		
7	Backup	USB, HDD, Network		
8	Video Output	VGA & HDMI(4K)		
9	Split Mode	1,4,9,16,24,36		
10	Network Interface	2 X RJ-45 (10M/100M/1000M)		
11	Communication Port	1 X RS485		
12	Alarm Input	4 CH		
13	Alarm Output	1 CH		
14	Alarm Handling	Message, Email, Buzzer, FTP		
15	Audio Compression	G711a		
16	Audio Input (RCA)	1CH		
17	Audio Output (RCA)	1CH		
18	Zoom	Support 15 x digital zoom in preview/ playback channel		
19	Working Temperature	0 - 55 Degree Celsius		
20	Certifications	BIS, EN, CE, FCC		

### SURVEILLANCE HARD DISK

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
	<b>Approved Make Only :</b>		
	<b>MODEL NO. :</b>		
	Surveillance HDD with minimum or better parameters:		
	6TB HDD, Interface Access Speed (Gb/s) – 6GB/S		
	Max. Sustained Transfer Rate OD (MB/s) - 190 MB/s		
	Workload Rate Limit (WRL) - 180TB		
	Mean Time Between Failures (MTBF, hours) – 1.0M, Load/Unload Cycles - 300,000		

### Layer 2 Lite Managed 8 port PoE Switch

<b>Parameter</b>	<b>Description</b>	<b>Compliance Yes/No</b>
Form Factor	Wall/Desktop Mountable	
Architecture	Non Blocking	
Ports	8 Port 10/100/1000 with PoE Managed Switch + 2 Fiber SFP ports	
GBIC/SFP	It should support 2 No's 1000 Base mini GBIC/SFP trans receivers LC connector for connecting single mode fiber(LX)	
PoE	75W (PoE+ supported)	
Port Status	Display Each port must have a dedicated LED status display.	
MAC Addresses	Supported Up to 8K MAC addresses	
Switching capacity	At least 20 Gbps	
and forwarding rate	Packet throughput 14 Mbps or more	
VLANs Supported	Support for up to 4096 VLANs simultaneously Port-based and 802.1Q tag-based VLANs MAC-based VLAN	
	HTTP/HTTPS; SSH; RADIUS; port mirroring; TFTP upgrade; DHCP client/server; Traceroot; BOOTP; SNTP; ping; syslog; Telnet client	
L2 Loop Protection	IEEE 802.1d Spanning tree protocol	
	IEEE 802.1W RSTP(Rapid spanning Tree Protocol)	
	IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	
Ring Protocol	Support EAPS for RING	
Link Aggregation	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP)	
	<ul style="list-style-type: none"> <li>● Up to 8 groups</li> </ul>	
	<ul style="list-style-type: none"> <li>● Up to 8 ports per group with 4 candidate ports for each (dynamic) 802.3ad link aggregation</li> </ul>	
QOS Support	Atleast 4 nos of 802.1p Priority Queues per Port.	
Port mirroring /span Port	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to one destination port. A single session is supported.	
Access Control	Should Support standard IP/ Extend IP / MAC IP / ARP ACL	
Management	Web Management, SNMP v1/v2/v3, Telnet, Upgrade Firmware	
Dimensions	240mm x 104mm x 29mm	
Power	AC Input 100-240V AC. Power Cable as per Indian Standards to be Provided	

**Layer 2 Managed 24 port Switch**

S. No.	Technical Specifications	Compliances Yes/ No	Deviations, if any
	<b>Approved Make Only :</b>		
	<b>MODEL NO. :</b>		
1	<b><u>Edge Switch (Layer 2)</u></b>		
2	<b>Architecture</b>		
	Switch with 24 Ports 10/100/1000 BASE-TX + 2 SFP port for gigabit connectivity		
	<b>Performance</b>		
3	The Switch shall have Non-blocking wire speed switch fabric of 20 GBPS		
4	The Switch shall support Min. 8K Mac address		
5	<b>Network Media</b>		
	SFP's 1000 BaseSX,1000BaseLX,1000BaseTX		
	<b>Layer 2 Features</b>		
6	The Switch should have IGMP Snooping with IGMP v1/v2 Snooping, IGMP v3 awareness, Supports 64 IGMP groups, Supports at least 64 static multicast addresses, IGMP per VLAN		
7	The Switch should have Spanning Tree Protocol with 802.1W,802.1S MUTIPLE SPANING TREE		
8	The Switch should have Port Mirroring One to one/Many to One		
	<b>VLAN</b>		
11	The LAN switch shall have IEEE 802.1 Q .		
24	<b>Operating Temperature</b>		
	0 to 50°C		
25	<b>Power</b>		
	AC Input 100-240V AC. Power Cable as per Indian Standards to be Provided		

**SERVER RACK (6U)**

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
	Approved Make Only :		
	MODEL NO. :		
	Rack with minimum or better parameters		
	6U Rack Frame, 550 mm(W) X 600 mm (D)		
	Key lock arrangement		
	Passive ventilation with vent slots		
	Top and bottom with vents		
	2 rubber grommets for cable entry, Ø 50 mm		
	Mounting provision for two fans with rack tray		
	Dust filter & Power strip.		

**SERVER RACK (22U)**

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
	Approved Make Only :		
	MODEL NO :		
	Rack with minimum or better parameters		
	22U Rack Frame		
	Key lock arrangement		
	Passive ventilation with vent slots		
	Top and bottom with vents		
	2 rubber grommets for cable entry, Ø 50 mm		
	Mounting provision for two fans with rack tray		
	Dust filter & Power strip.		



### SOLID CABLE CAT 6

S.NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)	Deviations, if any
1	The 4 pair Un-Shielded Twisted Pair cable shall be UL listed		
2	This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801		
3	Nominal Outer Diameter of Cable over outer Sheath: 5.9 +/- 0.1mm and Conductor Diameter 0.56(23 AWG).		
4	Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. Rip Cord is must.		
5	Conductor Solid bare Copper and outer jacket sheath FR PVC. Outer Jacket color: LIGHT GREY		
6	Insulation :High Density Polyethylene Solid		
8	Bending Radius : < 4X Cable Diameter at -20°C +/- 1°C Pulling Force: 25.35 LBS (max.)		
9	Electrical Parameters Pair – to – pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR.		
10	Insertion Loss of 32.8 db/100m at 250 MHz		
11	Cable should support operating Temperature from -20° to +70°C		
10	Cable support Conductor Resistance < 9.38 Ω /100m		
11	Mutual Capacitance of cable should be < 5.6nF/100m		
12	Max Resistance Unbalance of cable should be 5% Max		
13	Capacitance Unbalance of cable should max 330pF/100m		
14	Cable support Delay Skew: < 45nS, Operating Voltage: 72V NVP: 69% and Current Rating : MAX 1.5A		
15	Printed sequential Length Counter of each meter on Outer Jacket		
16	Category 6 cables		

**LIU FULLY LOADED**

Sr No	Technical Specifications	Compliance Yes / No	Deviations, if any
1	Approved Make Only :		
2	MODEL NO. :		
3	Min. 6 Port Configuration		
4	6 Ports Adapter Interface available <b>without</b> any adapter plates.		
5	Consist of Top Cover and Bottom Panel		
6	Easy to Assemble and Disassemble		
7	Three Types of Inlet Holes		
8	Cable Entry Through Water Proof Cable Glands		
9	Splice Max 24 Fibers per Splice Tray		
10	Patch Cord with Bend Radius Guides Minimize Macro Bending		
11	Comprehensive Accessory Kits for Cable Entry and Fiber Management		
12	Install 6 Cable Management Rings Inside to Ensure Flexibility		
13	Dimensions (mm) : 430 X 220 X 1U		
14	Body Material : SPCC Black Powder Coating		

**Optical Fiber Cable Single mode Armoured**

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
1	<b>Approved Make Only :</b>		
2	<b>MODEL NO. :</b>		
3.	6F Unitube Armored with water blocking tape. Rodent Proof, UV Protection. Direct Burial. Embedded Strength members as 2 steel wires od 1.0 mm. Polyester based yarns below Armor tape for easy ripping Thermoplastic Material Tube Excellent Water Proof Layer and Moisture Resistance Excellent Crush Resistance Performance Light Weight and Compact Structure The fiber type is a Matched Cladding Single Mode		
	<b>Low water peak fiber G.652D</b>		
	Extremely high bandwidth. Optimized to support transmission at 1310 nm,1550 nm. Virtually unlimited Modal Bandwidth at 1310 nm		
	Should fulfill the requirements of: IEC 60793-1/60794-1.2 ITU-T REC G.652D Telecordia GR-20 Core		
	Testing methods are in accordance with the following standards: ITU-T G.652.D IEC 793-1		
	Nominal mode field diameter	9.2 μm	
	Mode field diameter tolerance	±4 μm	

	Cladding diameter	125		
	Cladding diameter tolerance	$\pm 1 \mu\text{m}$		
	Mode field concentricity error	$< 1 \mu\text{m}$		
	Cladding non-circularity	(= $<$ ) 1.0		
4	Change of Temperature Attenuation increase, -60°C to +85°C	$\leq 0.05 \text{ dB/km}$		
	Dry Heat Attenuation increase, 30 days at 85°C	$\leq 0.05 \text{ dB/km}$		
	Damp Heat Attenuation increase, 30 days at 85°C/ 85%R.H.	$\leq 0.05 \text{ dB/km}$		
	Damp Heat Attenuation increase, 30 days at 85°C/ 85%R.H.	$\leq 0.05 \text{ dB/km}$		
5	CORE	Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.		
	6	COATING	UV-curable dual layer acrylate coating, which ensures excellent micro bending and abrasion resistance.	
Coating Strip Force (typical)				
Min.		1.3 N		
Max.		8.9 N		
Stripping force after ageing in water at 70 $\pm$ 5 °C for 168 h.				
Min.		1.0 N		
Max.		3.5 N		
7		Attenuation (of cable with fibers):		
	At 1310 nm	$\leq 0.35 \text{ dB/km}$		
	Atten. At 1383nm (OH-Peak)	$\leq 0.35 \text{ dB/km}$		
	At 1550 nm	$\leq 0.25 \text{ dB/km}$		
	Cut-off wavelength $\lambda_c$ :			
	High limit	1330 nm		
	Low limit	1180 nm		
	Cut-off wavelength $\lambda_{cc}$ :			
	High limit	1260 nm		
	Loss increase at 1550 nm for 100 turns of fiber loosely wound with a 37.5 mm radius:			
	Max.	0.1 dB		
	<b>Dispersion:</b>			
	Zero dispersion wavelength	1310 nm		
	Tolerance of zero dispersion			
	Wavelength	-10/+12 nm		
	Zero-dispersion slope: 1295 $\leq \lambda_0 \leq$ 1300			
	Max.	$\leq 0.092$ at $\lambda_0$		
	Chromatic dispersion coefficient:			
	In 1285 nm - 1330 nm interval:			
	Max.	3.5 ps/km • nm		
	In 1270 nm - 1340 nm interval			
	Max.	6 ps/km • nm		
	At 1550 nm			
	Max.	18 ps/km • nm		
	<b>Polarisation Mode Dispersion (PMD):</b>			
	Max.	$\leq 0.2 \text{ ps/km}$		

	In homogeneity of OTDR trace for any two 1000 meter fiber lengths		
	Max.	0.1 dB/km	
	Proof test level	1 %	

**Optical Fiber Patch Cord, Single Mode (OS2), LSZH Types 1 Mt**

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
1	<b>Approved Make Only :</b>		
2	<b>MODEL NO. :</b>		
3	<p>LSZH Jacket-Reduced Toxic Gasses Emitted During Combustion.  Simplex and Duplex Options  100% Factory Tested  Low Insertion Loss and Return Loss  Available with Corning Fiber  Available in PC/APC Type Options  High Precision Ceramic Ferrule with Good Concentricity  SC/LC</p> <p><b>Technical Specifications:</b></p> <p>Connector Type : SC, ST, FC, LC  Fiber Type : OS2  Tight Buffer Color : yellow  Tight Buffer Material : LSZH  Tight Buffer Diameter (mm) : 0.9 +/- 0.05  Strength Member : Aramid Yarn  Jacket Color : Yellow  Jacket Material : LSZH  Jacket Thickness (mm) : 0.45 +/- 0.05  Cable Diameter (mm) : 1.8(+/-0.1) X 5.9(+/-0.2)  Minimum Bending : 30 (static)  Radius (mm)  Attenuation (db/km) : &lt;= 1.5 at 1300nm, &lt;= 3.5mm at 850nm  Short Term Tensile (n) : 160  Crush Resistance (n/100mm) : 500  Operation Temperature : Minus 20 ~ Plus 70 (degree)</p> <p><b>Optical Specifications</b></p> <p>Insertion Loss : &lt;= 0.2 db, Max 0.3db/MTRJ: Max 0.5db  Return Loss : PC&gt;= 45db, UPC&gt;=50db, APC&gt;=60db</p> <p><b>Mechanical Specifications</b></p> <p>Connector Ferrule : Ceramic,  (MTRJ: PS Polyphenylene Sulphide)  Apex Offset : &lt;50µm  Fiber Height : (+/-)100nm  End Face Radius of Curvature : 7mm &lt;R&lt;25mm(Excluding MTRJ)  Repeatability : &lt;= 0.2db 1000 Times Mating Cycles</p>		

## SFP MODULE

Sr. No.	Technical Specifications	Compliance Yes / No	Deviations, if any
1	Approved Make Only :		
2	MODEL NO. :		
3	1000MBPS Single Mode SFP TRANCEIVER, LC TYPE (20KMS)		
4	Connector Type: LC Type		
5	IEEE Standard: IEEE 802.3z		
6	Wavelength (nm): 1310nm		
7	Fiber Type: Single Mode		
8	Max Cable Distance: upto 20Km		
9	Case Operating Temperature: -40° ~75°C		
10	Storage Relative Humidity: 5% to 95%		