Request for Proposal (RFP)

for

Supply, Installation and Commissioning of CCTV Surveillance System with Access Control Digital Management & FRS for Commissionerate of Police, Bhubaneswar.

Tender No:51-RFP-CCTV WITH ACCESS CONTROL DIGITAL MANGEMENT AND FRS-2024-25

Date: 12/02/2025

Tender Fee: {Non-refundable Rs.590/-(500/- + 18% GST (Rs.90)/-)}

A.I.G. of Police (Provisioning)
Tender Calling Authority
At/Po- Buxibazar, Cuttack, PIN — 753001

1. Table of Contents

2. Disclaimer

RFP document is neither an agreement nor an offer by the Odisha Police (the "Authority") to the prospective Applicants or any other person. The purpose of this RFP is to provide information to the interested parties that may be useful to them in the formulation of their proposals pursuant to this RFP.The Authority does not make any representation or warranty as to the accuracy, reliability, or completeness of the information in this RFP document and it is not possible for the Authority to consider particular needs of each party who reads or uses this RFP document. This RFP includes statements which reflect various assumptions and assessments arrived at by Authority in relation to the consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. Each prospective Applicant should conduct its own investigations and analysis and check the accuracy, reliability and completeness of the information provided in this RFP document and obtain independent advice from appropriate sources.

Authority will not be responsible for any delay in receiving the proposals. The issue of this RFP does not imply that the Authority is bound to select an Applicant or to appoint the Successful Applicant, as the case may be, for the firm and the Authority reserves the right to accept / reject any or all of proposals submitted in response to this RFP document at any stage without assigning any reasons whatsoever. Authority also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the Application in response to this RFP.

The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

Authority reserves the right to change/ modify/ amend any or all provisions of this RFP document. The amended RFP will be made available on the website of Authority.

Key Definitions:

i.   "AUTHORITY" means Odisha Police, Office of the D.G & I.G. of Police, Odisha, Cuttack
ii.   "BIDDER" means the agencies/firms submitting proposal against this RFP
iii.   "AGENCY" means the selected bidder to carry out the assignment in accordance with the terms defined in this RFP
iv.   "Applicable Law" means the laws and any other instruments having force of law in India from time to time
v.   "Proposal/bid" means proposal submitted by bidders in response to the RFP issued by Odisha Police, Office of the D.G & I.G. of Police, Odisha, Cuttack
vi.   "Contract Value" means the price payable to the selected bidder under the Contract for the complete and proper performance of its contractual obligations.
vii.   "Day" means Working day as defined by Government of Odisha
viii. "Services" means the work to be performed by the Agency pursuant to the selection by Odisha Police and to the contract to be signed by the AGENCY

3. Notice Inviting Tender

Odisha Police
Office of the D.G & I.G. of Police, Odisha, Cuttack
Tel. :0671-2304001,
Website:*www.odishapolice.gov.in* , **Email** : commissioneratepolice@nic.in
51-RFP-CCTV WITH ACCESS CONTROL DIGITAL MANGEMENT AND FRS-2024-25
Date : 12/02/2025

Online Bids through e-Tender Portal https://tendersodisha.gov.in are invited from the eligible bidders for Supply installation and commissioning of CCTV Surveillance System with Access Control Digital Management & FRS for Police Commissionerate, Hqrs, Bhubaneswar during the current financial year 2024-25 as per the schedule mentioned below.

Events	Date
RFP Issue Date	**12/02/2025**
Date & Time of Pre-Bid meeting Queries to be submit on commissioneratepolice@nic.in and aig-prov.odpol@gov.in, 2 days prior to the pre -bid meeting as per the format prescribed in Annexure 5	A pre-proposal meeting will be intimated to bidder. (Online Link shall be shared based on the request receive from bidder on commissioneratepolice@nic.in and aig-prov.odpol@gov.in before 15.02.2025 by 15:00 Venue _ O/o the Commissionerate of Police, Bhubaneswar.
RFP Submission Due Date and time	**24/02/2025 Noon**
Date & Time of Opening of Technical Bids	**25/02/2025 Noon**
Date & Time of Opening of Financial Bids	To be intimated
Tender Document fee	In favour of A.I.G. of Police (Prov.), Odisha, Cuttack payable at Cuttack. (Demand Draft)
EMD (Earnest Money Deposit)	In favour of A.I.G. of Police (Prov.), Odisha, Cuttack payable at Cuttack. (Demand Draft)

The bid document with all information relating to the bidding process including cost of bid document, Prequalification criteria and terms & conditions are available in the websites: https://tendersodisha.gov.in The Authority reserves the right to accept / reject any part thereof or all the bids without assigning any reason thereof.

A.I.G. of Police (Provisioning,)
Cuttack, Odisha
(Tender Calling Authority)

4. Instruction to the Bidders

1. The Odisha Police –Odisha Police (Tender Inviting Authority) is a Govt. organization working under Home Department, Govt. of Odisha.
2. The bid documents published by the Bid Inviting Officer (Procurement Officer Publisher) in the e-procurement portal https://tendersodisha.gov.in will appear in the "Latest Active Tender". The Bidders/ Guest Users can download the Bid documents from 12/02/2025, 05.00 PM and submit it online by 24/02/2025, 12.00 Noon after which the same will be removed from the list of "Latest Active Tender".

4.1 PARTICIPATION IN BID

4.1.1 PORTAL REGISTRATION:

The bidder intending to participate in the bid is required to register in the e- procurement portal using an active personal/official e-mail ID as his/her Login ID and attach his/her valid Digital signature certificate (DSC) - Class II or III to his/her unique Login ID. He/ She has to submit the relevant information as asked for about the bidder. The portal registration of the bidder is to be authenticated by the State Procurement Cell after verification of original valid certificates/documents such as (i) PAN and (ii) Registration Certificate (RC) / GST Certificate (for Procurement of Goods) of the concerned bidder. The time period of validity in the portal is co terminus with validity of RC/ GST. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication, bidder can participate in the online bidding process.

4.1.2 LOGGING TO THE PORTAL:

The Bidder is required to type his/her Login ID and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.

4.1.3 DOWNLOADING OF BID:

The bidder can download the bid of his / her choice and undertake the necessary preparatory work off-line and upload the completed bid before the closing date and time of submission.

4.1.4 CLARIFICATION OF BID:

The registered bidder can ask questions related to the online bid in the e-procurement portal before the pre-bid meeting. The Odisha Police Headquarters, At-Buxi Bazar, Cuttack, (Email – aig-prov.odpol@gov.in) will clarify queries related to the bid. Through e-mail by the e-mail ID: aig-prov.odpol@gov.in and Contact No. 0671-2339517 or State e-Procurement cell help desk 1800-3456765, 0674-2530998 for assistance in this regard.

4.1.5 PAYMENT OF COST OF BID DOCUMENTS:

The detail guideline for payment of Cost of Bid Document is mentioned at General Condition of contract

4.1.6 SUBMISSION AND SIGNING OF BID

The detail guideline for submission of & signing of bid is mentioned at General Condition of Contract

Note : *For management of space the bidders can serially arrange their scanned documents as per Annexure 1,2(all pages should be signed by authorized signatory with seal and then to be scanned) and create two equalized PDF files and upload them to avoid any space constraint.*

*The **BOQ** file (Excel file) is to be uploaded in the **price bid**.*

5. General Definitions

5.1 General Definitions

5.1.1 *Department* means Odisha Police under Home Department, Government of Odisha.

5.1.2 *Government* means Government of Odisha.

5.1.3 *Bid / Tender Inviting Authority* is the Odisha Police or authorized person of Odisha Police (A.I.G. of Police (Provisioning), Odisha, Cuttack, who on behalf of the User Institution/Government or the funding agencies calls and finalize bids and ensure supply, installation and after sales service of the equipment's procured under this bid document.

5.1.4 *Tender Evaluation Committee & Technical Committee* are Committees authorized by the D.G. & I.G. of Police, Odisha, Cuttack to decide on the purchase of the items to be procured by the Odisha Police.

5.1.5 *User Institutions* are the Odisha Police under Home Department, Govt. of Odisha for which the items under this bid is procured.

5.1.6 *De-recognition/ Debarment* – the event occurring by the operation of the conditions under which the bidders will be prevented for a period of 3 years from participating in the future bids of Tender Inviting Authority, more specifically mentioned in the Specific Conditions of Contract and General Conditions of Contract of this bid document, the period being decided on the basis of number of violations in the bid conditions and the loss/hardship caused to the Tender Inviting Authority on account of such violations.

6. Scope of Work:

The Commissionerate of Police, Bhubaneswar-Cuttack (CP-BBSR-CTC) headquarters, located in Bhubaneswar, operates a State-of-the-Art Unified Command & Control Center (UCC). This facility caters to the city surveillance needs of both Bhubaneswar and Cuttack. The UCC is equipped with the Genetec Security Center Platform and VMS Software Solution, hosted on an in-premise Blade Server.

To enhance the security and operational capabilities of the headquarters, CP-BBSR-CTC intends to implement a niche technology-based Smart AI CCTV Surveillance System with Access Control and Facial Recognition Systems at all entry and exit points. This will ensure robust monitoring and prevent unauthorized access to the premises. The detailed scope of work for this tender is outlined as follows:

6.1 High-Resolution AI-Enabled Cameras

i. Supply and installation of **high-resolution EDGE-based AI-enabled IP Bullet, Dome and PTZ cameras** at strategic locations within the premises.
ii. Cameras must support advanced AI features such as unwanted object detection, motion tracking, and real-time video analytics etc.

6.2 Advanced Facial Recognition System

i. Implementation of an **advanced facial recognition system** on all entry and exit gates.
ii. The system should monitor the movement of unauthorized or unwanted individuals, flagging alerts to the UCC in real time.
iii. The system must comply with privacy and data protection standards.

6.3 Biometric Access Control System

i. Installation of **facial recognition-enabled biometric access control systems** to manage the entry/exit to I&UCCC room.

6.4 Blade Server Supply &Installation

i. Supply and installation of a **blade server** that meets the required technical specifications.
ii. The server must be integrated into the existing **HP Blade Chassis** infrastructure.

6.5 Fiber Optic Networking

i. Design and installation of a robust **Fiber optic network** to connect all CCTV cameras and systems to the Command & Control Room.
ii. The network must ensure high reliability, redundancy, and low latency.

6.6 Integration with Existing UCC Platform

i. Seamless integration of the proposed CCTV cameras, biometric attendance, and facial recognition systems with the existing UCC platform powered by Genetec.
ii. Ensure compatibility with existing Genetec VMS and software configurations.
iii. The storage required for proposed surveillance system for a backup of 30 days shall be met within the SAN Storage System available at command & control center. However, the bidder has to specify the storage requirement on technical bid.

6.7 Advanced Notifications and Alerts

i. The EDGE AI-enabled IP CCTV cameras should able to generate real-time **notifications, alerts, and alarm messages** directly visible on the UCC dashboard.
ii. These notifications should enable field responders to act promptly and responsibly.

6.8 Operation & Maintenance (O&M)

i. Comprehensive **operation and maintenance services** for a period of **five (05) years** from the date of project delivery.
ii. Regular updates, preventive maintenance, and technical support to ensure system uptime and performance.
iii. Training for designated personnel on the use and management of the new systems.

6.9 Site Survey and Evaluation

i.   Bidders are encouraged to conduct a **site survey** at their own cost with prior intimation to the competent authority.

ii. The site survey should identify existing infrastructure, integration & storage requirements, and potential challenges to ensure a seamless implementation process.

7. Key Deliverables

i.   High-resolution AI-enabled IP Bullet, Dome and PTZ Cameras installed at all specified locations.

ii.   Advanced Facial Recognition System operational at all 3 nosentry and exit points.

iii. Functional Facial Recognition-enabled Biometric Access Control System.

iv.   Robust Fiber Optic Network ensuring reliable connectivity between cameras and the Command & Control Room.

v.   Integration of new and existing surveillance equipment into the UCC platform.

vi.   Fully operational notification and alert system integrated with the UCC platform.

vii. Maintenance support for five years, ensuring uninterrupted operation and resolution of issues.

8. General Conditions

i.   The selected bidder must ensure that all hardware and software components are fully compliant with the existing UCC infrastructure and its Genetec-based platform.

ii.   All installations and integrations must adhere to industry best practices, relevant security standards, and applicable government regulations.

iii. The bidder must submit detailed documentation for the solution design, installation processes, testing protocols, and maintenance procedures.

iv.   The bidder must demonstrate experience in implementing similar projects, preferably for government or law enforcement agencies.

9. Technical Bill of Materials

Refer Annexure 6 for Technical Bill of Materials with the required qty , The bidder must bid as per the qty mentioned in Annexure 6

10. Technical Specifications of the CCTV and other required component.

10.1 Edge Based AI Bullet Camera - 5MP Camera

Sl. No	Parameter	Technical Specification
1.	Type	Bullet Camera
2.	Image Sensor	1/2.7" Progressive CMOS with deep learning feature or better
3.	Resolution	5 MP (2592 × 1944)or better
4.	Lens	f = 2.7~13.5 mm,
5.	Shutter Time	1/3 s–1/100,000 s or better
6.	WDR	120dB or better
7.	Removable IR-cut Filter for Day/Night Settings	Yes with Supreme Night Visibility
8.	S/N Ratio	50 db or better
9.	IR Illuminators	Built-in IR illuminators, up to 50 meters or better
10.	Minimum Illumination	0.005 lux@F1.5

		0.0005 lux@F1.5 (B/W, 30 IRE
		0 lux with IR illumination on
11.	Video Frame Rate	Main stream: 2592 × 1944 @ (1–25/30) fps Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps), Sub stream 2: 1920 × 1080 @ (1–25/30 fps) Sub stream 3: 1280 × 720 @ (1–25/30 fps) or better
12.	Video Streams	Quad streams or better
13.	On-board Storage	Seamless Recording to MicroSD/SDHC/SDXC card slot. The Camera should be support upto 512GB SD Card class 10 need to supplied at time of bidding
14.	Video Streaming	Adjustable resolution, quality and bit rate control, Smart Stream III for bandwidth optimization
15.	Image Settings	video title and time stamp overlay, video orientation, anti-overexposure, white balance, brightness, contrast, saturation, sharpness, gamma curve, defog, 3DNR;Pixel calculator , BLC, HLC, Exposure level, iris adjustment, exposure time, gain control, iris mode , Privacy mask, Scheduled profile settings,
16.	Audio Capability	Two-way Audio (full duplex)
17.	Audio Compression	G.711, G.726
18.	Audio Interface	External microphone input
		External line output
19.	Protocols	IPv4, IPv6, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, RTMP, SMTP, FTP, SFTP, DHCP, DNS, DDNS, QoS, UPnP, NTP, Multicast, ICMP, IGMP, NFS, SAMBA, PPPoE, SNMP, ONVIF (Profile S/Profile G/Profile T), CGI
20.	Security	Video encryption, Firmware encryption, Configuration encryption, Digest, WSSE, Account lockout, Security logs, IP/MAC filtering, Generation and importing of X.509 certification, syslog, HTTPS, 802.1x, Trusted boot, Trusted execution, Trusted upgrade
21.	Interface	RJ-45 (10/100 Base-T)
22.	ONVIF	Profiles T, G & S Supported and available on onvif website. Camera OEM should be full membership of ONVIF and it is available on onvif website
23.	RAM/Flash	1GB /128MB
24.	Smart Motion Detection	people detection, vehicle detection, video motion detection, Smart Motion Detection
25.	Edge based Analytics	Intrusion detection, line crossing detection, Face Detection
26.	Alarm Triggers	No SD card, SD card full, SD card error, Network disconnection, IP conflict, illegal access, Motion detection, video tampering, tripwire, intrusion, scene changing, audio detection, voltage detection, defocus detection, external alarm, face detection, SMD, security exception
27.	IP Connectors	RJ-45 (10/100 Base-T)
		Audio input
		Audio output
		DC 12V power input
28.	Power Input	DC 12V, IEEE 802.3af PoE
29.	Power Consumption	PoE: Max. 12W,DC 16V: Max. 9 W,AC 24V: Max.11
30.	Operating Temperature & Humidity	Starting Temperature:
		-30°C ~ 60°C (-22°F ~ 140°F)
		Working Temperature:
		-40°C ~ 60°C (-40°F ~ 140°F) (IR off)
31.	Safety Certifications for Camera	CE , FCC, RoHS , BIS
32.	End to End Encryption	The camera and software should be open platform integrated with other

		makes at SDK level. However they should have end to end encryption.
33.	OEM Declaration	The MAC address registered in the name of OEM. CCTV OEM Company should not be technically rejected in any Govt. tender in India for their origin from any land border sharing countries of India.
34.	OEMs declaration certificate	OEM should have **ISO/IEC 27032:2012** Certificate which provides guidance for improving the state of Cyber security.
35.	OEM Declaration	MANUFACTURER AUTHORISATION CERTIFICATE [MAF] from camera OEM should be produced in the name of OEM supplying the cameras. [MAF format Attached] All The cameras from same OEM. Proposed camera OEM must be full time member of ONVIF and should not be blacklisted by ONVIF. [Reference Documents form ONVIF website]. OEM should not be blacklisted or barred by any Ministry of Government of India or globally or any of the Government / PSUs or any other government department at the time of bidding. CCTV OEM should have manufacturing in India since last five years and Foreign CCTV OEM should have manufacturing unit globally from last 10 years. Documentary evidence should be submitted.
36.	OEM Declaration	The OEM of CCTV Component should have General Data Protection Regulation **(GDPR)** and Waste Electrical and Electronic Equipment **(WEEE)** Certification. OEM needs to submit the certificates with technical bid.
37.	ISO Certificate	ISO 9001:2015, ISO 14001:2015, ISO 27001:2013 , ISO 45001:2018, IEC27032:2012.
38.	OEM Declaration	OEM need to confirm that the Cameras etc., shall not be installed with standards like - GB28181, GB/T 28181-2011; GB/T28181-2016; GBT 28181-2011; GBT 28181-2016, etc.
39.	Certification	CE, FCC, RoHS, BIS

The Bidder must submit the above technical specifications (10.1) as part of the technical bid, indicating compliance with Yes or No."

10.2 Edge based AI IP Dome Camera

Sl. No.	Parameter	Technical Specification
1.	Image Sensor	1/2.7" Progressive CMOS or better
2.	Resolution	2592x1944 (5MP) or better
3.	Lens	2.7 mm~ 13.5 mm motorized lens
4.	Shutter Time	1/3 s–1/100000 s or better
5.	WDR	120dB or better
6.	Removable IR-cut Filter for Day/Night Settings	Yes
7.	S/N Ratio	50 db or better
8.	Minimum Illumination	0.006 Lux@F1.5
9.	Digital Zoom	10 X or better
10.	IR Illuminators	Built-in IR illuminators, effective up to 40 meters
11.	On-board Storage	Seamless Recording to Micro SD/SDHC/SDXC card slot, support upto 256 GB SD Card class need to supplied at time of bidding
12.	Compression	H.265, H.264 & MJPEG
13.	Video Frame Rate	20fps@2592 × 1944, 50/60fps@1080P (1920 × 1080) or better
14.	Video Streams	3 video streams

15.	Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
16.	Image Settings	video title and time stamp overlay, white balance, brightness, contrast, saturation, sharpness, gamma curve, defog, 3DNR, EIS (built-in gyro sensor), BLC, HLC, exposure level, iris adjustment, exposure time, gain control, iris mode, Privacy mask
17.	Audio Capability	Two-way Audio
18.	Audio Compression	G.711, G.726, MPEG-2 AAC-LC
19.	Audio Interface	External microphone input
20.		External line output
21.	Users	Live viewing for up to 10 clients or better
22.	Protocols	Pv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; SNMP; ONVIF (Profile S/Profile G/Profile T), CGI, Milestone, Genetec,
23.	Security	User account management, Built in Cybersecurity in camera
24.	Interface	10 Base-T/100 Base-TX Ethernet (RJ-45)
25.	ONVIF	Profiles G,S,T and Camera OEM should be full membership of ONVIF and it is available on onvif website
26.	Cybersecurity	Embedded in Camera
27.	Smart Motion Detection	video motion detection , People detection, Vehicle detection
28.	Edge based Analytics	Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering
29.	Vision Object Analytics	Object Abandoned/Missing, Heat Map
30.	Alarm Triggers	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly
31.	IP Connectors	RJ-45 cable connector for 10/100 Mbps PoE network connection
32.		Audio line input
33.		Audio line output
34.		DC 12V power input
35.	Power Consumption	12.4 W or better
36.	Operating Temperature & Humidity	Starting Temperature: -30°C ~ 60°C (-22°F ~ 140°F) Working Temperature: -40°C ~ 60°C (-40°F ~ 140°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on) ,98% RH (non-condensing)
37.	Safety Certifications	IK10 , CE,FCC,RoHS,BIS

The Bidder must submit the above technical specifications (10.2) as part of the technical bid, indicating compliance with Yes or No."

10.3 EdgeBased AI IP PTZ Camera

Sl. No	Parameter	Technical Specification
1	Image Sensor	1/2.8" Progressive CMOS or better
2	Resolution	2560x1440 (4MP) or better
3	Lens Type	30x Optical Zoom, Auto Focus or better

4	Focal Length	f = 4.94 ~ 148.24 mm [/- 1mm] or better,54.1° ~ 1.9° (Horizontal),41.2° ~ 1.4° (Vertical) 65.7° ~2.4° (Diagonal),F1.3 ~ F4.6,DC-iris
5	Auto-iris	DC-iris
6	Shutter Time	1/1s~1/30,000s
7	Removable IR-cut Filter for Day /Night Settings	Yes
8	IR Illuminators	Built-in IR Illuminators up to 150 meters or better
9	Minimum Illumination	Color: 0.005lux@F1.6
		B/W: 0.0005 lux@F1.6
		0 lux with IR illumination on
10	Pan Speed	0.1° ~300° /s
11	Pan Range	360° endless
12	Tilt Range	-15° to 90° (auto flip)
13	Tilt Speed	0.1° ~200°/sec
14	Preset Locations	300 Preset locations
15	Pan/Tilt/Zoom Functionalities/e-PTZ	16x digital zoom or more
		Auto Pan mode
		Auto Patrol mode
		Mechanical Auto flip
16	Storage	Seamless Recording to Micro SD/SDHC/SDXC card slot. The Camera should be support upto 512GB SD Card class 10
17	Video Compression	H.265, H.264, MJPEG
18	Video Frame Rate	Main stream: 4M/3M/1080P/1.3M/720P (1–25/30 fps) Sub stream1: D1/CIF (1–25/30 fps) Sub stream2: 2MP/1.3MP/720P (1–25/30 fps)
19	Video Streams	Min3 video streams and configurable or better
20	S/N Ratio	Minimum 50 dB or better
21	WDR	120 dB or better
22	Video Streaming	Adjustable resolution, quality and constant bit rate control,
23	Image Settings	Video title and time stamp overlay, video orientation, anti-overexposure, white balance, brightness, contrast, saturation, sharpness, gamma curve, defog, 3DNR, EIS, scene mode , BLC, HLC, gain control, Privacy mask ; Scheduled profile settings,
24	Audio Capability	Two-way audio
25	Audio Compression	G.711, G.726
26	Audio Interface	External microphone input
		External line output
27	Unicast User	Live viewing for more than 3 clients or better
28	Security	Access list, digest authentication, HTTPS, IEEE 802.1x, password protection, signed firmware, brute force attack event, cyberattack event, quarantine event, user access log, user account management, embedded cybersecurity
29	Protocols	HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; 802.1x; QoS; FTP; UPnP; ICMP; SNMP; SNMP v1/v2c/v3 (MIB-2); IGMP; ARP; RTCP; RTP; PPPoE; RTMP; TCP; ONVIF Profile S&G&T; CGI
30	Interface	10 Base-T/100 Base
31	ONVIF	Profiles G,S,T and Camera OEM should be full membership of ONVIF and it is available on onvif website
32	Video Motion Detection	Yes
33	Face Detection	Support Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc. vehicle (bike, bus, car, motorcycle, truck,

		color); Re-Search Extraction; Path Extraction
34	Compute Capability	SoC with built-in hardware deep learning accelerator
35	Event Action	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection
36	IP Connectors	RJ-45 cable connector f or 10/100 Mbps PoE network connection
		Audio line input
		Audio line output
37	Power Input	IEEE 802.3bt Class 6 PoE, DC 48V, AC 24V (Dual Power supply)
38	Power Consumption	Basic: 13 W Max.: 22 W (illuminator + PTZ working)
39	Certifications	IP67,CE,FCC,RoHS,BIS
40	Operating Temperature	-40°C ~ 70°C
41	Humidity	98% or better

The Bidder must submit the above technical specifications (10.3) as part of the technical bid, indicating compliance with Yes or No."

10.4 FRS (facial Recognition System)

Sr. No	Specification
1	The Facial Recognition System (FRS) targeted by this specification must be able to identify multiple persons of interest in real-time or recorded video files, through leading-edge face recognition technology from different video sources like IP cameras, Body Worn Cameras, and Mobile handset cameras, etc. The solution shall be able to perform in a crowd, on the move, and at a distance, with enrolment on the fly.
2	The FRS system shall be enterprise-grade highly scalable providing the most accurate results for the most demanding real-time and post-event offline mode.
3	The FRS system shall make use of the latest technologies such as AI & Deep learning with a series of the latest multiple CPU or GPUs from respective OEMs and not discontinued products.
4	The FRS system shall make use of the stream computing paradigm of the latest GPUs to the limit by performing multiple stages of the face recognition pipeline in parallel. It must efficiently exploit cache hierarchies of both GPUs and CPUs to greatly improve the computational performance in crowded environments.

5	To ensure the support to an open eco-system, the FRS system shall be a truly open & independent solution module and not embedded in any NVR or VMS
6	The FRS system shall support the auto discovery of any ONVIF compliant camera.
7	The UI of the FRS system should support the live view of all the connected cameras for monitoring.
8	The processing module of the system shall work without any interruption standalone at the respective station location even though the network is down and SYNC back all the captured data of events/alarms once the network is available.
9	The FRS system shall have NO LIMITATION of detection & identification of the number of people appearing in a frame.
10	The FRS system shall be able to detect multiple faces (from up to 600 frames) & compare a face against a database with the comparison speed of 60 million within a second.
11	The FRS algorithm of the system shall be able to recognize partial faces with varying angles (up to face rotations of ± 45 ° horizontal and ± 30 ° vertical) & any facial accessories/ hair (mask, glasses, beard, and expressions).
12	On identification of a registered suspect in live view, the operator can see the name and colour on the face box based on the watch list of the suspect registered in the database.
13	The FRS system shall be able to broadly match a suspect/criminal photograph with a database created using a photograph images database available with different government authorities & local police.
14	The FRS system shall ensure data privacy and security by proper encryption technologies such as AES-256 standard or better.
15	The FRS system shall have offline inbuilt modules that make it possible to search for a specific subject in one or various recorded videos, existing database records & from previous detections logs of all the cameras at speeds faster than real-time. Analysis of offline videos can be performed at a speed of 12 times faster than a real-time stream. Also, the system shall provide options to choose from maximum accuracy or maximum speed for processing offline videos. This module shall also employ the GPU architecture so that it can process at high speed all the images on the analysed video, without omissions.
16	The FRS system shall support day/night operation with the ability to detect faces both in colour and in black/white mode without any special configurations required.

17	The FRS system shall support diverse graphic & standard video compression formats such as the latest compressions technology & resolutions (e.g. AVI, MPEG, MP4, MOV, ASF, H.265, 4MP, 4K & 8K).
18	The FRS system shall be able to handle at least a minimum of 4MP FRS cameras with full frames per server. All the cameras must be available live view on the monitoring UI, so the subject can be easily pinpointed in the live video.
19	The FRS system shall have an inbuilt or external tool to synthetically generate rotated views of the face from a single partial/frontal image of the suspect face.
20	The FRS system shall show the top 8 nearest matches with a matching percentage score of the captured image & CCTV frame image.
21	The FRS system shall have the option to enable automatically enrol face images from live / recorded CCTV feeds & also be able to check if a new enrolled face is already enrolled in the database before registering the new face in the system.
22	The FRS system shall be able to utilize any of the file formats like JPEG, PNG, BMP, TIFF, etc. format for enrolment for matching.
23	The FRS system shall have an independent module for bulk registration of subjects automatically through folders or files.
24	The FRS system shall have the capacity to create different categories of subjects with the option to customize the matching threshold for different categories & cameras.
25	The FRS system shall support a user management module that enables different user level groups & permission levels to them.
26	The user interface of the FRS system shall be user-friendly & have a report management tool without the installation of any additional client software. It shall be able to generate real-time different reports in different file formats.
27	The FRS system shall have a web-based centralized management module to see all the system logs, the status of all processing servers, search of any face from logs of all connected servers, and also managed SYNC of all detections/identification to main DB and vice versa any new face addition in DB to all connected station processing servers.
28	The FRS system should register raised alarms/events in relational databases complying with the SQL standard, such as PostgreSQL, Oracle, or MSSQL.
29	The FRS system shall allow the regular backup of its database files, so the customer can rebuild the system quickly in any system failure situation.
30	The FRS system shall have ready to serve a mobile app for Alarm monitoring and cross-check the identity of any suspect.

31	The FRS system shall support pushing identification alarms on email. The email format shall include subject ID, captured & matched face, frame image, date and time of the match, a score of the match, watchlist name & camera details, etc.
32	All External communications between the FRS system and third-party applications support SSL encryption with username and password.
33	The FRS system shall be pre-integrated with the installed VMS system and tagged with information such as the name of the subject, alarm type (detection & identification), subject code, subject group /watchlist, matching score, timestamp, camera source, comments, etc.
34	The FRS system shall provide an SDK/API for integration with any third-party software like C4I Command & Control Centre. API must be available with a full set of documentation of each method with accompanying sample code. All-important FRS functions shall be fully accessible via API.
35	Must have successful Implementation in India with UCCC/VMS integration.

The Bidder must submit the above technical specifications (10.4) as part of the technical bid, indicating compliance with Yes or No."

10.5 FRS SERVER

Sl. No		Minimum Requirement Specification
1	Processor	One (01) no. of Intel Xeon 4310 or higher Processor (12-core, minimum 2.1 GHz clock rate)
2	Memory	Minimum 32 GB latest DDR4 memory using 64 GB/ higher DIMMs. Advanced ECC with multi-bit error protection. Fast Fault Tolerance
3	Storage/HDD	Two (02) nos. of 960GB or higher HDD/SSD drive. Additional support for up to 8 NV Me drives.
4	RAID Controller	SAS/NV Me RAID Controller supporting RAID 0, 1, 5, & 6 and with minimum 4GB Non-volatile cache.
5	Graphics	Integrated Graphics Controller b) 2 x NVIDIA/AMD/equivalent GPU as per SI solution offered.
6	Ethernet	4-ports of 1G Base. 2-ports of 10G SFP+ (SR)
7	FC HBA	Support for 32Gb FC HBA
8	Slots	Minimum one free PCIe 4.0 slots
9	Ports	Five (05) USB 3.0, One (01) Dedicated 1G base Ethernet Port for OS independent Out-of-Band (OOB) hardware management.
10	Bays	Support up to 10 Hot Swap drive bays
11	System Chassis	Rack Mount, 2U (max) chassis, security bezel with lock and chassis intrusion kit, Redundant Hot Swappable Power Supply with platinum efficiency.
12	OS certification	Certification for latest Server version of Windows and minimum two Linux Flavors
13	Drive/Software utilities	All required device drivers for OS installation, System Configuration and Server Management
14	System Management	Monitoring ongoing management, service alerting, reporting and remote management with embedded dedicated Gigabit out of band management port. Remote Management of Server over LAN & WAN with SSL encryption, Virtual NIC, Virtual Media and Virtual Folder with required advanced license and server system security dashboard, Remote KVM, Server Health logging, Directory Services compliance (AD or LDAP), Multi-factor authentication, REST API, Group management of power/configuration/licenses including firmware, Configuration backup, Syslog (local and remote), IEEE 802.1x, IEEE 8021AR.
		Management software should support integration with popular virtualization platform management software like vCenter, SCVMM and Red Hat RHEV.
		Inventory and firmware and software update management tool must be offered supporting IPv6, Automated, scheduled server discovery, Stage and deploy firmware updates, along with Add-on service support,
		Server's integrated remote management subsystem shall have EAL2+ or higher

		common criteria certification (Certificate copy from Common Criteria Portal to be submitted).
15	Serviceability	System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone support. The server should support monitoring and recording changes in the server hardware and system configuration. It assists in diagnosing problems and delivering rapid resolution when system failures occur. Should provide remote firmware update functionality.
		Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.
		Solution should be provided for monitoring & analysis feature to predict, prevent and auto-resolve problems and by providing automating case creation and log file submission for the problems that can't be auto-resolved.
		Server should have security dashboard to get the status of important security features, the Overall Security Status for the system, and the current configuration for the Security State and Server Configuration Lock features.
		Workload Performance Advisor - Provides server tuning recommendations to improve server performance
16	Virtualization	Should support Industry Standard Virtualization Software
17	IDC Ranking	OEM should be ranked within top 3 as per IDC report for any one of the previous four quarter in India for server.
18	OS License	Windows Server -2019

The Bidder must submit the above technical specifications (10.5) as part of the technical bid, indicating compliance with Yes or No."

10.6 Facial Recognition Biometric Access Control System

Sl No.	Parameter	Description
1	Biometric	Automatic Face recognition with liveness detection, Fingerprint
2	RF Option	Must support 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DES Fire EV1/EV2, Felica
3	RF Read Range	EM/MIFARE/DES Fire: 50 mm (2"), Feli Ca: 30 mm (1.2")
4	CPU	1.4 GHz Quad Core or Better
5	Memory	16GB Flash with 2 GB RAM or Better
6	LCD Type	Minimum 5" IPS colour LCD
7	LCD Resolution	800 x 1280 pixels or better
8	IP Rating	IP65 or better
9	Certificates	CE, FCC, RoHS, REACH, WEEE
10	Recognition Distance	0.5m or better
11	Recognition Height	140cm or better
12	Matching Speed	Less than 0.5 sec or better
13	Anti-Spoofing	Must Support

14	Image Dimension	300x400 pixels or better
15	Resolution	500 dpi or better
16	Template	ISO19794-2, ANSI-378
17	Extractor / Matcher	MINEX certified and compliant
18	Sensor Certificates	FBI PIV and FBI Mobile ID FAP20
19	Max. User (1:1) Base on one face/ fingerprint enrolment per user	10000 or better
20	Max. User (1:N) Base on one face/ fingerprint enrolment per user	Face: 20000 or better
21	Max. Text Log	5000000 or better
22	Max. Image Log	50000 or better
23	Ethernet	10/100 Mbps, auto MDI/MDIX
24	RS-485	Must support
25	Wiegand	Must support
26	TTL Input	2ch Inputs or Better
27	Relay	1 Relay or Better
28	USB	USB 2.0 or better
29	Tamper	Supported
30	Voltage	DC 12V ~ DC 24V Current: Max. 2.5 A *Use a 24V/2.5A adapter, Must follow the product manual when using a 12V adapter.

The Bidder must submit the above technical specifications (10.6) as part of the technical bid, indicating compliance with Yes or No."

10.7 Blade Server, which will be added to the existing Blade Chassis

Sl. No	Parameter	Minimum Requirement Specification
1	Processor	Minimum One (01) nos. of Intel/AMD latest Generation Processor (16-core, minimum 2.7 GHz clock rate)
2	Memory	Minimum 64GB latest RAM scalable up to 2TB. Advanced ECC with multi-bit error protection.
3	Storage/HDD	Minimum Two (02) nos. of 960GB SSD in Hardware RAID1.
4	RAID Controller	SAS 12G RAID Controller with minimum 1GB cache or higher.
5	Graphics	Integrated Graphics Controller or equivalent
6	Network Controller	Two (02) 50Gb Converged Network Adaptor or higher
7	FC HBA	Support for 32Gb FC HBA
8	Slots	Minimum two free PCIe 4.0 slots
9	Ports	Two (02) USB 3.0, One (01) Dedicated 1G Base T Ethernet Port for OS independent Out-of-Band (OOB) hardware management.
10	Bays	Support up to 4 Hot Swap drive bays

11	System Chassis	Blade form factor.
12	OS certification	Certification for latest Server version of Windows and minimum two Linux flavors
13	Drive/Software utilities	All required device drivers for OS installation, System Configuration and Server Lifecycle Management
14	System Management	Remote Management of Server over LAN & WAN with SSL encryption, Virtual NIC, Virtual Media and Virtual Folder with required advanced license, Server system security dashboard, Remote KVM, Server Health logging, Directory Services compliance (AD or LDAP), Multi-factor authentication, REST API, Group management of power/configuration/licenses including firmware, Syslog (local and remote), IEEE 802.1x, IEEE 8021AR.
		Inventory and firmware and software update management tool must be offered supporting IPv6, Automated, scheduled server discovery, Stage and deploy firmware updates, along with Add-on service support,
		Server's integrated remote management subsystem shall have EAL2+ or higher common criteria certification (Certificate copy from Common Criteria Portal to be submitted).
15	Serviceability	Server should support monitoring and recording changes in the server hardware and system configuration to assist in diagnosing problems and delivering rapid resolution when system failures occur. Should provide remote firmware update functionality.
		Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.
		Server should be provided with monitoring & analysis feature to predict, prevent and auto-resolve problems and by providing automating case creation and log file submission for the problems that can't be auto-resolved. Server OEM shall have portal for customer to see the support case history.
16	Virtualization	Should support Industry Standard Virtualization Software
17	IDC Ranking	OEM should be ranked within top 3 as per IDC report for any one of the previous four quarter in India for server.
18	Warranty	Five years on-site comprehensive OEM Warranty Support with 24X7 coverage and access to OEM TAC/support.

The Bidder must submit the above technical specifications (10.7) as part of the technical bid, indicating compliance with Yes or No

10.8 9U Rack

SL No	Parameters
1	9U, 19" 550mm Width, 600mm Depth, Wall Mount Networking Enclosure
2	It should confirm to DIN 41494 or equivalent standard
3	It should be welded construction with steel frame
4	Lockable tough ended glass front door
5	19" mounting angle made of formed steel
6	Powdered coated standard finish
7	Top & Bottom welded cover with vented & cable entry exit cut outs
8	2 pair of 19" mounting rails
9	1U Cable Manager
10	Roof Mounted Fan Unit

| 11 | 230V AC, 6-way, 5 Amp Power Distribution Unit |
| 12 | Mounting Hardware set. |

The Bidder must submit the above technical specifications (10.8) as part of the technical bid, indicating compliance with Yes or No

10.9 Surge Protection Device

SL.No	Parameter	Specifications
1	Nominal voltage	48V
2	MCOV	64V
3	Load current	1.5A
4	Frequency	250MHz
5	Impulse current rating(10/350µS)	1kA
6	Nominal discharge current(8/20µS), C2	3kA
7	Total discharge current(8/20µS)	20kA
8	Voltage protection level	<100V @ 3kA
9	Insertion loss	<1dB @ 250MHz
10	POE Compliance	Type 1&2 according to IEEE802.3af,at and Type3&4 POE according to IEEE802.3bt
11	Mounting	DIN rail and surface mount
12	Connection cable	STP and UTP cable
13	Ambient temperature	-40Deg C to +75Deg C
14	Compliance	Design comply to ANSI/TIA568.2-D, TIA/EIA-568- B.2-1, IEC61643-21. Testing in progress
15	Certification	Tec

The Bidder must submit the above technical specifications (10.9) as part of the technical bid, indicating compliance with Yes or No

10.10   1 KVA LINE INTERACTIVE UPS

Sl. No	Parameter	Description
1	Capacity	1000VA/600W
2	Input Voltage Range	140 V ~ 300 VAC
3	Frequency	50 Hz ± 10%
4	Output Voltage	230 VAC Nominal
5	Transfer Time	Typical 4~8ms
6	Waveform (Battery Mode)	Modified Sine Wave
7	Battery Type	Sealed Maintenance Free
8	Charging Time	6~8 Hours recover to 90% capacity
9	Battery	SMF 12V /7AH x 2 Battery

10	Operating Temperature	0°C-40°C;
11	Relative Humidity	0 to 90% non-condensing
12	Noise Level	< 40dB

The Bidder must submit the above technical specifications (10.10) as part of the technical bid, indicating compliance with Yes or No

10.11   24 PORT MANAGED POE LAYER 2 SWITCH

SL No	DESCRIPTION
1	Layer-2 Managed Switch having minimum 24x 10/100/1000BaseT PoE ports & 4x 10G SFP+ slots
2	Switching Capacity: Minimum 128Gbps (Must have non-blocking architecture)Packet Forwarding Rate (For 64-bytes packet size): Minimum 95Mpps
3	The switch should support both IEEE 802.3af & IEEE 802.3at standards. It should have PoE power budget of at least 370Watt.
4	The Switch should have following L2 features:
5	MAC Address Table size: At least 16000, support at least 256 static MAC
6	Flow Control: IEEE 802.3x in full duplex, back pressure in half duplex & HoL blocking prevention
7	Jumbo Frame Support (At least 12000 bytes)
8	IGMP v1 v2 with at least 256 IGMP snooping groups, Per VLAN IGMP Snooping, port based IGMP snooping fast leave.
9	LLDP, LLDP-MED, IPv6 Neighbour Discovery.
10	IEEE802.1D STP, 802.1w RSTP, 802.1s MSTP, Root guard or equivalent feature.
11	The switch should be able to avoid the loop occurring in a single port connected to an unmanaged switch/hub by shutting down the corresponding port or corresponding VLAN
12	IEEE 802.3ad Link Aggregation with at least 8 ports per groups & 8 groups per switch.
13	Port mirroring for Tx/Rx/Both. One-to-One mode, Many-to-one mode
14	IEEE 802.1Q VLAN, at least 4094 Static VLANs, Voice-VLAN
15	The switch should have 802.1p support with 8 queues per port. Support strict & WRR queue handling technique.
16	The switch should have Port-based ingress & egress bandwidth control with minimum granularity of atleast 16kbps
17	The switch should have standard & extended Access control list
18	The switch should have the following security features: Broadcast, Multicast & Unicast storm control, port security feature with atleast 64 MAC per port, traffic segmentation, ARP spoofing prevention, IEEE 802.1x, DHCP server screening, RADIUS server.
19	The switch should have feature to protect the CPU from protocol control packet attack.
20	The switch should have cable diagnostic feature to check the status of connected RJ45 cables.
21	The Switch should have following Management features from day-1: Web-based GUI, Web based GUI for IPv6, Physical console port for Out of band CLI management, Telnet Server, Telnet Server IPv6, TFTP Client, TFTP client IPv6, SNMPv1v2cv3, SNMP IPv6, SNMP trap, BootP/DHCP Client,SNTP, trusted host, trusted host IPv6, RMONv1, Syslog, Syslog IPv6.
22	The switch should have Energy saving green technology based on cable length & link status. IEEE 802.3az

23	Switch should be CE,FCC,UL,VCCI, certified
24	Switch should support IPv6 from day one.
25	All type of switches & transceivers should be from same make.

The Bidder must submit the above technical specifications (10.11) as part of the technical bid, indicating compliance with Yes or No

10.12   12 PORT LIU (LOADED)

SL No	Description
1	12-Port, 19" Rack Mount LIU Fully Loaded with Single Mode SC Adapters
2	Aluminium/Steel base material with powder coating for light mounting
3	Snap-in locker design, easy to change the adapter panels
4	Front mounted cable saddles for jumper management
5	It should have facility for managing splices & terminations
6	It should have rubber fiber slotted bracket built-in
7	It should be capable of storing upto 3mtr of 900micron tight buffered fiber per adapter
8	It should have snap-in locker design for easy to change adapter panels for various connector patching
9	It should have removable rubber grommet allowing for pre-terminated fibre trunk installation, cable protection & minimizing dust build-up.
10	It should have at least 4 rubber cable plugs for cable entries.
11	It should have removable front & top covers for better access to interior of LIU
12	It should be supplied with cable ties, mounting ear screws and spiral wrap tubes

The Bidder must submit the above technical specifications (10.12) as part of the technical bid, indicating compliance with Yes or No

10.13   TRANSCEIVER

SL No	1G SFP Transceiver
1	1000Base-LX Single Mode SFP Transceiver with Duplex LC Connector
2	Support IEEE802.3z 1000BASE-LX
3	At least 10Km distance support on single mode fiber interface
4	Output TX Optical Power MAX.: -3dBm MIN.: -8 dBm
5	Output RX Optical Power MAX.: -3dBm MIN.: - 24 dBm
6	Sensitivity -24dBm
7	Cable Type single-mode 9/125um fiber
8	Operating wavelength: 1310nm
9	Should be same make as switches.

The Bidder must submit the above technical specifications (10.13) as part of the technical bid, indicating compliance with Yes or No

10.14   OFC PATCH CORD

SL No	Fiber Optic Patch Cord

1	Single Mode LC-SC Duplex Patch Cord - 1Mtr
2	Optical fiber patch leads shall comprise of Single mode 9/125µm fiber with LC-SC fiber connectors terminated at each end. The optical fiber patch leads shall comply with the following specifications:
3	Optical Fiber – Single mode
4	Connector: Zirconia ceramic ferrule
5	Pre-radiuses and pre-polished ferrule
6	Duplex Type
7	Color-coded yellow for Single mode
8	Insertion Loss :<0.3 db
9	Cable: 9/125, SM
10	Return Loss: >/= 50dB for UPC
11	Durability: 1000 mating cycle
12	Working Temp: (- 20 deg. C to + 60 deg. C)
13	Length: 1 Meter

The Bidder must submit the above technical specifications (10.14) as part of the technical bid, indicating compliance with Yes or No

10.15   OPTICAL FIBRE CABLE

SL No	6 Core Fiber Optic Cable
1	**Make/Model**
2	6 Core Single Mode Outdoor Armored Fiber Optic Cable
3	Electro Chromium Coated Corrugated Steel Tape (ECCS)
4	Central loose tube with jelly compound
5	Sequential meter marking
6	Armoured Design with Ripcord
7	The fibre should fulfil the requirement of IEC 793-2:1992, EN 188101, ITU-T Recommendation G.652
8	Outer Diameter: 9.±0.3mm
9	Thickness of HDPE Jacket: 1.8±0.2mm
10	Pulling Tension: 2000N
11	Crush Load: 3000N/100mm
12	Bend Radius: Short Term (20D)
13	The fibre type is a Matched Cladding Single Mode
14	The fibre is optimized for operation at 1310 nm and at 1550 nm.
15	Nominal Mode Field Diameter: 9.2 µm
16	Cladding Diameter: 125 µm
17	Clading non-circularity: < 2%
18	PMD (ps/km): 0.2
19	Cable Cut-off Wavelength: 1260nm
20	**Attenuation (of cable with fibers):**
21	At 1310 nm: <= 0.36 dB/km
22	At 1550 nm : <= 0.22 dB/km

The Bidder must submit the above technical specifications (10.15) as part of the technical bid, indicating compliance with Yes or No

The Bidder must submit the above technical specifications (10.15) as part of the technical bid, indicating compliance with Yes or No

10.16   CAT6 UTP CABLE

SL No	CAT6 UTP Cable
1	Category 6 Unshielded Twisted Pair 4 pair cable shall be compliant with ANSI/TIA/EIA-568-C.2 channel performance
2	The 4 pair Unshielded Twisted Pair cable shall be UL Listed, ETL Verified
3	All Category 6 cables shall meet or exceed the following characteristics:
4	Mechanical Characteristics
5	Construction: 4 twisted pairs separated by internal X shaped, 4 channel, full separator. Half shall not be accepted.
6	Conductor dia: 23 AWG
7	Insulation: polyethylene
8	Pairing: Two insulated conductor twisted together
9	No. of Pair: 4 pair twisted together
10	Colour of sheath: FR-PVC GREY- Single sheath
11	Rip Cord should be available
12	Sequential meter marking should be available
13	Temperature Rating: (- 20 to +60 C)
14	Packing: 305 Mtrs.
15	Low Frequency Electrical Parameter
16	CONDUCTOR RESISTANCE (DC): 9.38 OHMS/100 MTR @20 Degree C. MAX.
17	RESISTANCE UNBALANCE: 5% Max
18	MUTUAL CAPACITANCE: 5.6 nF/100 mtrs Max.
19	CAPACITANCE UNBALANCE PAIR/GROUND: 330PF/100M MAX
20	Nominal Velocity of Propagation: 69%
21	IMPEDANCE: 100±15%OHMS
22	Worst Case cable skew : 45ns/100m
23	Generally confirming to EIA/TIA 568-C.2 and IEC/ISO 11801

The Bidder must submit the above technical specifications (10.16) as part of the technical bid, indicating compliance with Yes or No

11. General conditions for OEM

SL No	OEM Minimum Requirement
1	OEM should have valid ISO 9001, ISO 14001 & ISO 45001:2018 certified for design and development of LAN and WAN products, all the relevant certificates must be submitted along with the bid.
2	The OEM must not be blacklisted or banned by any State/Central Government, Semi Government or PSU and any other GOVT. organization in INDIA during last 10 years. Declaration from OEM need to be submitted with the bid.
3	OEM should not have filed for bankruptcy and should have profitable balance sheet for at least each of the last 5 (five) consecutive financial years. Declaration from OEM need to be submitted with the bid.
4	OEM should have a registered office in India and should be directly present for last 10 years in India and globally, from date of RFP publication.
5	Bidder has to submit original Ink signed Tender Specific Authorisation in OEM letter head.
6	OEM should have direct or authorised service centre in Odisha.
7	OEM should have Tollfree number for free technical assistance support.
8	All active products should carry 3 years' warranty as per OEM standard.

The Bidder must submit the above OEM Requirement (11) as part of the technical bid, indicating compliance with Yes or No and with relevant supporting documentation

12. Qualification Criteria

The bidder must meet the below eligibility criteria to be considered for further shortlisting purpose

Sr. No.	Basic Requirement	Specific Requirement	Documents Required
1	Entity Type	Bidder must be Company registered under Companies Act, 1956 or any of its amendments thereafter or Partnership registered under Indian Partnership Act, 1932 or any of its amendments thereafter or Proprietor registered under Shops and Establishment Act	• Copy of Certificate of incorporation / Registration certificate with relevant authority • PAN Card • GST Registration certificate and GST Clearance certificate upto March 2023
2	Existence of Firm	The Bidder should be in business in the supply, installation of CCTV with other digital accessories to govt agencies for at least last Five (5) years as on date of bid submission	• Work order or Agreement **Or** • Payment Proof **Or** • Completion Certificates or Satisfactory Certificate **Or** • Delivery Challan
3	Turnover	The Bidder shall have average annual turnover of not less than 1 Crores and OEM shall have average annual turnover of not less than 2 crores in last three consecutive financial years (Financial years 2021-22, 2022-23,2023-24)	CA Certificate/ Audited Balance Sheet clearly stating turnover
4	Relevant Experience	The bidder must have supplied at least 1 full CCTV package along with accessories for any Govt Agencies in last 3 years as on date of bid submission.	Work order copy from the client stating the quantity of equipment supplied
5	Blacklisting And Pending Petitions	Bidder shall not have been debarred / blacklisted till bidding period by Central Govt. /State Govt. / Public Sector Undertaking / any other Local Body or body established under or in the control of the Central or state Government on the date of submission of their Bid.	Self-certification on furnished with 20 rupees stamp paper

The bidder meeting the criteria mentioned above shall be eligible for financial bid opening.

13. Evaluation of Bid

Selection may be made on LCS Least Cost Selection method, which means the bidder quoting the lowest rate shall be identified as preferred bidder.

14. Deliverables

Vendors need to supply , Install and Test the required qty of CCTV with other digital accessories within 30 days from date of issuance of Purchase order.

Deliverable Address

AT-   Office of the Commissionerate of Police,
       Bidyut Marg, Bhubaneswar – 751001

15. Payment Terms

100% payment on successful delivery and testing of CCTV with other digital accessories

16. Performance Security

The Bidder shall be submitting the Performance Security equivalent to 5% of the agreement value in the form of a Bank Guarantee

17. Conflict of Interest

Conflict of interest exists in the event of conflicting assignments, typically monitoring and evaluation of the mandate being executed by the selected bidder in the future.

18. Anti-corruption Measure

a) Any effort by Bidder(s) to influence the Authority in the evaluation and ranking of commercial proposals, and recommendation for award of contract, will result in the rejection of the proposal.

b) A recommendation for award of Contract shall be rejected if it is determined that the recommended bidder has directly, or through an agent, engaged incorrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

c) In such cases, the Authority shall blacklist the bidder either indefinitely or for a stated period of time, disqualifying it from participating in any related bidding process for the said period.

19. Legal Jurisdiction

All legal disputes between the parties shall be subject to the exclusive jurisdiction of the Courts in Cuttack only.

Annexures

20. Annexure 1 : Technical Bid Format

Technical Bid Format

(To be submitted in Technical Bid Envelope)

The documents have to be arranged serially as per order mentioned below:

1	Name of the Firm/Company	
2	Name of the Authorized Signatory and Designation	
3	Address & Contact Details	
4	E-mail ID	
5	Registration Details: Company / Firm	CertificateofIncorporation/ Registration PAN Card GST Registration Certificate Bank Account & RTGS details
6	Experience in similar field	Workorder/ContractAgreement Copy Filled up for per Annexure-2
7	Annual average turnover of Bidder of Rs. 1 Crs. And OEM 2 Crs. in the last three financial years(i.e. 2021-22, 22-23 and 23-24)	Annual Turnover Statement certified by Chartered Accountant as per Annexure-3 Filed IT return of last 3years
8	The Firm/ Agency should not have been blacklisted/banned by Central/StateGovt.& PSU/ CPSEs	Self-certification on furnished with 20 rupees stamp paper
9	Submission of undertakings for Bid terms & conditions acceptance.	To be submitted on the Letter Head
11	Non-refundable RFP Document Fee of Rs.590/- (500 + 90 (18% GST) = 590	Demand DraftIn favour of A.I.G. of Police (Prov.), Odisha, Cuttack payable at Cuttack.
12	Earnest Money Deposit (EMD) of Rs.1,00,000/-along with Offer Document.	Demand DraftIn favour of A.I.G. of Police (Prov.), Odisha, Cuttack payable at Cuttack.

Place:

Date:

Bidder's Signature

21. Annexure 2:Summary of Technical Capability

(To be submitted in Technical Bid Envelope)

Name of the Assignment	Name/ Address of the Organization	Date of Award of Assignment	Value of Work Order In Rs.

Note: Please furnish the Work order/Contract Agreement copy only in support of the information mentioned above.

Place:

Date:

Bidder's Signature

22. Annexure 3:Financial Capability of Bidder/Agency Annual

Turnover Statement (To be signed byCertified Chartered Accountants)

(To be part of Technical Bid Envelope)

TheAverage AnnualTurnover forthelastthreefinancialyearsofM/s_____ _Are given below and certified that the statement is true and correct.

Year	Annual Turnover in Rs.	Average AnnualTurnover
2021-22		
2022-23		
2023-24		

Average annual turnover for the above three years in Rs.(In words_____

Date:

Place:

Signature of Auditor/

Chartered Accountant

Name:

Seal:

23. Annexure 4: Template of financial bid

(To be submitted in Financial Bid Envelope)

Sl No.	Description of Item	Qty	Total Amount (Inclusive all taxes) (INR in Lakhs)
1	CCTV Surveillance System with Access Control Digital Management & FRS	**01 Set**	

Note:

1. The quoted rates shall be inclusive of Logistics, packaging and training and all other conditions mentioned in the RFP document.
2. All Quoted rate are inclusive GST.

Date:

Place:
Bidder's Signature

24. Annexure 5 : Format for Pre-Bid Queries

Name of the Bidder	
Name of the Sender	
Designation	

Sr. No.	**Page no.**	**Clause Reference**	**Clause Description**	**Modification/ Clarification required**

25. Annexure 6: Technical Bill of Materials (Qty)

SL NO	Materials Details	Quantity	UOM
Commissioner of Police Bhubaneswar BOM			
SL NO	**Materials Details**	**Quantity**	**UOM**
Hardware			
1.	5 MP Motorised Varifocal EDGE AI poweredIP Bullet Camera	32	Nos
2.	5MP EDGE AI poweredIP Dome Camera	18	Nos
3.	4MP EDGE AI poweredPTZ Camera with Stand	4	Nos
4.	Facial Recognition System complete setup with required hardware (Facial Reorganization System)	3	No
5.	Facial Recognition Biometric Access Control System	2	Nos
6.	Blade Sever (Which will be fitted to the existing Blade chassis -Make HP)	3	Nos
7.	9U indoor Rack with PDU, Fan, cable manager etc.	9	Nos
8.	Surge Protection Device (SPD)	54	Nos
9.	1 KVA UPS with Internal Battery	9	Nos
Active &Passive			
10.	24 ports L2 Managed PoE switch with 2 SFP	10	Nos
11.	12 Ports LIU Full loaded	10	Nos
12.	SFP Transceiver Module	20	Nos
13.	OFC SC-LC Patch cord	20	Nos
14.	PoE++ Injector for PTZ camera	4	Nos
15.	Outdoor Water Proof Camera Back Box with Clamp	54	Nos
16.	6 Core fiber	1000	Meters
17.	Cat-6 UTP indoor Cables	13	Boxes
18.	Flat Cable for lift	1	Box
19.	25 MM PVC Pipes & Conduits Required for Cable Laying & Protection, Flexible Pipe, T Bend, L Bend and L Bow	1000	Pics
20.	25 MM C Clip	20	Packet
21.	2 Way gang Box	11	Nos
22.	32A MCB with Box	9	Nos
23.	5A Socket & switch	11	Nos
24.	1MM 3 core Power Cable	200	Meters
I&UCCC Software Application			
25.	Existing I&UCCC platform base Camera connection Licence	300	Nos
26.	Integration of Access Control System	1	Lot
27.	Integration of FRS System	1	Lot

Manufacturer's Authorization Form (MAF)

(To be submitted on OEM Letterhead)

Ref. No._____ Dated _____

To

The A.I.G. of Police (Provisioning),

Odisha, Cuttack.

Dear Sir,

Tender Reference No./ NIT / GeM Bid No. : _____

Name of the item:

We M/s. _____ who are established and reputable manufacturers of _____ _____do hereby authorize M/s._____ (Name and a ddress of Agent / Dealer) to participate in the above tender.

We hereby extend our technical assistance to the bidder during installation and inspection of the product.

We hereby certify that, the equipments being sold would not be declare d End of Support (EoS) or become obsolete in the next 5 years. Also, we certify t hat the products being sold would be covered under Warranty / Support and OE M support will be available for _____ years (as specified in the GeM Bid / Tender / NIT No.) from the date of installation, even in the case, the bidder becomes "Ou t of service".

We have studied the requirements of the product and confirm that we will adhere to the specifications of the tender and quality plan and extend all support during the inspection and provide documentary evidence at the time of inspection f or the verification by Client/Client's representative.

Yours faithfully

(Name)

For and on behalf of M/s. _____

(Name of manufacturers)

<u>Certificate for Prevention of Corruption Act / non Debarment Certificate</u>

"I certify that I have not committed any offence-

(a) Under the Prevention of Corruption Act, 1988;

or

(b) The Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.

(c) I have not been debarred by any Central / State Government Organization/Bodies for the last 3 years."

Signature with designation.

Please note that non-submission of this certificate will lead to disqualification.