



**REQUEST FOR PROPOSAL
FOR SELECTION OF SYSTEM INTEGRATOR
FOR
INSTALLATION OF CCTV SURVEILLANCE SYSTEM AT 23
LOCATIONS UNDER MIZORAM POLICE - 2023**

**GOVERNMENT OF MIZORAM
POLICE HEADQUARTERS
MIZORAM : AIZAWL**

CALENDAR OF EVENTS AND OTHER RELEVANT DETAILS

Sl. No.	Information	Details
1	RFP No. and Date	RFP No.1 of 2023-24
2	Non Refundable Tender Cost	Rs. 1,500/-
3	Sale of Document	RFP documents can be purchased at Provisioning Branch, PHQ, Aizawl or downloaded from Mizoram Police Website www.police.mizoram.gov.in
4	EMD	2% of bid amount
5	Last date (deadline) for receipt of RFP	29.02.2024 upto 1200 hrs
6	Place, Time and Date of opening of Technical / Financial RFP received	Office of AIGP (Mod.) , Police Hqrs., Khatla, Aizawl on 21.02.2024 at 1400hrs
7	Contact Person for queries	AIGP (Mod.), Police Hqrs., Khatla, Aizawl, Phone No: 0389 – 2335225
8	Addressee and Address at which RFP is to be submitted	Office of DGP, Mizoram, Police Hqrs., Khatla, Aizawl

GLOSSARY OF TERMS

Abbreviation	Description
BoM	Bill of Material
BoQ	Bill of Quantities
CB	Capacity Building
CBT	Computer Based Training
CCTV	Closed Circuit Television
DPR	Detailed Project Report
HHS	Hand Holding Support
HQ	Headquarters
HR	Human Resource
ICT	Information and Communication Technology
IGP (HQ)	Inspector General of Police (Headquarters)
IP	Internet Protocol
IT	Information Technology
LAN	Local Area Network
MHA	Ministry of Home Affairs
OC	Officer-in-Charge
OS	Operating System
PC	Personal Computer
PIMR	Project Implementation and Monitoring Report
PMIS	Project Management Information System
PoE	Power over Ethernet
PS/OP	Police Station/ Outpost
PSI	Police Sub Inspector
RFP	Request for Proposal
SDC	State Data Centre
SI	Systems Integrator
SLA	Service Level Agreement
SOP	Standard Operating Procedure
SP	Superintendent of Police
SRS	System Requirement Specifications
UAT	User Acceptance Testing
UPS	Uninterrupted Power Supply

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Name of the Project / Initiative	Selection of System Integrator for Installation of CCTV Surveillance System at 23 locations under Mizoram Police - 2023
Locations	<ol style="list-style-type: none"> 1. PHQ Main Gate 2. PHQ Entry/Exit point at MPRO 3. PHQ Building Block-A 4. PHQ Compound (Arya Mess, etc.) 5. Cyber Crime PS 6. Crime & Economic Offences PS 7. Special Narcotic PS 8. All Women PS 9. Seling Outpost 10. East Lungdar Outpost 11. Tuifar Police Checkgate, Aizawl District 12. Zokhawthar Checkgate (ICP), Champhai District 13. Khankawn Checkgate, Champhai District 14. Dunglelang Checkgate, Champhai District 15. Vairengte Checkgate (ILP), Kolasib District 16. Bairabi Checkgate (ILP), Kolasib District 17. Saiphai Checkgate (ILP), Kolasib District 18. Phaisen Checkgate (ILP), Kolasib District 19. Sailiamkawn Checkgate, Serchhip District 20. Kanhmun Checkgate (ILP), Mamit District 21. Ngopa Checkgate, Saitual District 22. Thingsai Checkgate, Hnahthial District 23. Tuisenphai Checkgate, Khawzawl District
Project Implementation Period	<p>100 days</p> <p>Please refer Section 4, page 11 for the detail timelines</p>

1. INTRODUCTION

The use of CCTV cameras has become increasingly popular in recent years due to their ability to provide real-time monitoring and surveillance. The installation of CCTV cameras provides law enforcement agencies with an additional layer of security, allowing them to monitor and track any suspicious activities. The purpose of this project is to install a CCTV system at following locations to reduce crime and assist in investigations:

1. PHQ Main Gate
2. PHQ Entry/Exit point at MPRO
3. PHQ Building Block-A
4. PHQ Compound (Arya Mess, etc.)
5. Cyber Crime PS
6. Crime & Economic Offences PS
7. Special Narcotic PS
8. All Women PS
9. Seling Outpost
10. East Lungdar Outpost
11. Tuifar Police Checkgate, Aizawl District
12. Zokhawthar Checkgate (ICP), Champhai District
13. Khankawn Checkgate, Champhai District
14. Dungtlang Checkgate, Champhai District
15. Vairengte Checkgate (ILP), Kolasib District
16. Bairabi Checkgate (ILP), Kolasib District
17. Saiphai Checkgate (ILP), Kolasib District
18. Phaisen Checkgate (ILP), Kolasib District
19. Sailiamkawn Checkgate, Serchhip District
20. Kanhmun Checkgate (ILP), Mamit District
21. Ngopa Checkgate, Saitual District
22. Thingsai Checkgate, Hnahthial District
23. Tuisenphai Checkgate, Khawzawl District

2. OBJECTIVES

The primary objective of the project is to install CCTV cameras at the police stations and check gates to improve the security of the premises. The specific objectives of the project include:

1. **Enhanced Security:** The CCTV system will provide continuous surveillance of the area, which will enhance security and deter potential criminal activities.
2. **Crime Reduction:** With the presence of a CCTV system, criminal activities such as theft, vandalism and assault can be prevented, reducing crime in the area.
3. **Evidence Collection:** CCTV footage can be used as evidence in investigations and court proceedings.
4. **Realtime Monitoring:** The CCTV system will enable real-time monitoring of the area, allowing law enforcement officers to monitor the area from command and control center.
5. **Improved Efficiency:** With a CCTV system in place, law enforcement officers can focus on other important tasks, knowing that the check gate area is under constant surveillance.

3. SCOPE OF WORK

KEY HIGHLIGHTS

The proposed video surveillance system involves setting up IP based cameras at Police Headquarters, selected Police Stations and Check-gates. Key highlights of the scope of work for the System Integrator (SI) are as follows:

Locations	<ol style="list-style-type: none"> 1. PHQ Main Gate 2. PHQ Entry/Exit point at MPRO 3. PHQ Building Block-A 4. PHQ Compound (Arya Mess, etc.) 5. Cyber Crime PS 6. Crime & Economic Offences PS 7. Special Narcotic PS 8. All Women PS 9. Seling Outpost 10. East Lungdar Outpost 11. Tuifar Police Checkgate, Aizawl District 12. Zokhawthar Checkgate (ICP), Champhai District 13. Khankawn Checkgate, Champhai District 14. Dunglelang Checkgate, Champhai District 15. Vairengte Checkgate (ILP), Kolasib District 16. Bairabi Checkgate (ILP), Kolasib District 17. Saiphai Checkgate (ILP), Kolasib District 18. Phaisen Checkgate (ILP), Kolasib District 19. Sailiamkawn Checkgate, Serchhip District 20. Kanhmun Checkgate (ILP), Mamit District 21. Ngopa Checkgate, Saitual District 22. Thingsai Checkgate, Hnahthial District 23. Tuisenphai Checkgate, Khawzawl District
No. of IP Cameras	60
No. of IP Cameras With Built-in-mic	23
No. of ALPR/ANPR Cameras	6
Total No. of Cameras	89
Command Control Centre	No. of NVR: 21 Nos. of 4-ch and 2 Nos. of 8-ch No. of PoE: 21 Nos. of 4-port and 2 Nos. of 8-port No. of HDD: 21 Nos. of 4TB and 2 Nos. of 8TB No. of 2U Rack: 23 Nos. No. of Monitor: 23 Nos. of 27 inch LED No. of UPS: 23 Nos.
Go Live Period (all regions)	100 days from date of Work Order
Maintenance & Operations Support	For 24 months from Go Live date

3.1 SCOPE OF WORK FOR IT COMPONENTS

CCTV CAMERA

The project includes installation of regular IP cameras, cameras with Built-in-Mic and License/Number Plate Recognition cameras. The System Integrator (SI) shall assess the feasibility of using any existing electrical, phone or advertisement poles under Police jurisdiction during initial site surveys. In addition, the system design should be modular, and each component should be well organized and clamped inside to ensure components do not heat up or fall out. The electricity / power costs for the project will be borne by Mizoram Police.

VIDEO RECORDER AND STORAGE SYSTEM

A robust, reliable and scalable storage system shall be deployed by the System Integrator (SI) to enable audio and video storage. Offering a balance between storage performance, storage capacity, and data integrity, the Video Recorder shall feature fast and safe recording. For access and control live streaming from the cameras, the application must offer features such as Easy GUI, Playback, digital zoom and more.

COMMAND CENTRE

All camera feeds shall be available for viewing by Police Personnel at any point of time. Viewing Centre shall have viewing capacity of 4 to 8 cameras at a given point. Broad level of materials required at the Command-and-Control Centre are as follows:

IT COMPONENTS

Monitor - Min. 27" LED Display (Full HD) wall mounted.

2U NVR Rack.

NVR 4 and 8 channel with 4TB and 8TB of storage.

PoE switch 4 and 8 ports.

Regular IP camera, IP camera with Built-in-Mic and License/Number Plate Recognition (LPR/NPR) cameras.

Cat 6 cable

RJ45 connector

3.2 SCOPE FOR NON-IT COMPONENTS

CABLE WORK

If found necessary, the cable shall be fixed with clamps on the walls of the duct. Cables shall be laid on the walls / on the trays as required using suitable clamping / fixing arrangement as required. Cables shall be neatly arranged on the trays in such manner that a crisscrossing is avoided and final take off to switch gear is easily facilitated.

All cables will be identified close to their termination point by cable number as per circuit schedule. Cable numbers will be punched on 2 mm thick standard strips and securely fastened. In case of control cables all covers shall be identified by their wire numbers by means of PVC ferrules. For trip circuit identification additional red ferrules are to be used only in the switch gear / control panels, cables shall be supported so as to prevent appreciable sagging. In general distance between supports shall not be greater than 600 mm for horizontal run and 750 mm for vertical run.

Each section of the rising mains shall be provided with suitable wall straps so that it can be mounted on the wall. Whenever the rising mains pass through the floor, they shall be provided with a built-in fire proof barrier so that this barrier restricts the spread of fire through the rising mains from one section to the other adjacent section.

Necessary earthing arrangement shall be made alongside the rising mains enclosure by means of a GI strip of adequate size bolted to each section and shall be earthed at both ends. The rising mains enclosure shall be bolted type. The space between data and power cabling should be as per standards and there should not be any criss-cross wiring of the two, in order to avoid any interference, or corruption of data.

POWER BACKUP

An Uninterruptible Power Supply (UPS) with internal battery capable of providing uninterrupted power supply for the surveillance system during an electrical blackout must be provided. The UPS must have the capability of supplying AC energy to the surveillance system during a utility outage and are required to have Anti-islanding protection.

4. PROJECT IMPLEMENTATION PERIOD

The project will be broken down into a number of distinct work packages. The work breakdown structure will be used as the basis for defining milestones. To deliver on time and within budget, the implementation will follow tried and tested PRINCE2 (Project in Controlled Environment) methodology. A breakdown of the work package is outlined below:

DELIVERABLES / MILESTONE	DURATION
Preparation phase • Order and purchase of necessary equipment	30 Days
System installation phase • Supply, Integration, Configuration and Installation of components	60 Days
Training & Provision phase • Training and Capacity building for the Police Personnel	10 Days
Total Implementation Period	100 Days

5. OVERALL SOLUTION REQUIREMENT

5.1. Roll-Out/Go-Live

The configuration of all equipment shall be done in accordance with this tender and agreement thereof. The connectivity testing shall be part of the roll out plan.

5.2. Implementation Schedule

The installation and commissioning of the Networking Equipment at all locations shall be completed by the SI within a maximum of 100 days from receipt of work order. Likewise the Police Department will also ensure that the requisite numbers of personnel are made available for the Capacity Building program and subsequent manning of the surveillance system in the respective Police Stations and Outposts.

5.3. Acceptance Testing

Acceptance Testing (AT) shall be conducted for all the equipment. SI shall provide test reports from concerned officers in support of the technical and performance specifications.

After completion of the installation work, the complete system shall be tested for hardware and software functions.

SI, along with the representative nominated by the Mizoram Police, shall carry out the Acceptance Testing to prove the performance of the different equipment, subsystems and the overall installation, to the entire satisfaction of the Police Department.

The AT shall include a 3-day confidence trial of the equipment after completion of all tests. This period shall not be part of the installation period.

The SI (contractor) shall be responsible for supplying all the special tools and test instruments required for onsite testing.

As a part of the acceptance tests, it shall be checked that:

- ❖ Equipment AT shall be conducted for all the equipment.
- ❖ Network Acceptance shall be conducted in all locations where the surveillance systems are installed as per the UAT document.
- ❖ All documentation for routine Operation, Maintenance & Debugging.
- ❖ Preventive maintenance, installation drawing, factory and on-site acceptance test results are supplied / fully updated.

5.4. Taking Over

Even though the system might have started working much earlier, it would be taken over by the purchaser when:

- ❖ Acceptance Tests as per above have been completed to the full satisfaction of the Purchaser for all the 23 locations.
- ❖ Any deficiency pointed out during the AT shall be removed by means of software revision/upgrade at no additional cost to Mizoram Police before the system can be accepted.
- ❖ SI should successfully demonstrate the working of the system to the complete satisfaction of Mizoram Police/ staff nominated by Mizoram Police for carrying out Acceptance Testing when the system goes live.

5.5. Documentation

All the hard / soft copies of product documentation shall be handed over to the Mizoram Police for the proper upkeep of the equipment.

Documentation related to equipment configuration details, connectivity diagram, basic operation / maintenance / change control procedures shall also be provided to the Mizoram Police after the implementation and commissioning of the project.

5.6. Handover

The handover phase shall see the SI project team handover the live setup to Mizoram Police. Mizoram Police and Resident Engineers from SI shall be responsible for day to day administration and management of the network.

5.7. Goals of this Request for Proposal (RFP)

The primary goal of this tender is to solicit proposals from the reputed, reliable, researched and qualified firms to be selected as the System Integrator (SI) for the CCTV Surveillance System at 23 locations through a competitive bidding process for which the request for proposal (RFP) is issued. This RFP intends to bring out all the details with respect to the solution and other requirements that are deemed necessary to share with the potential bidders. The goals of RFP are further elaborated below:

- To seek proposals from potential bidders for providing the “bundle of services” in implementing and managing the CCTV Surveillance System at 23 locations under Mizoram Police.
- To understand from the bidders how they propose to meet the technical and operational requirements of CCTV Surveillance Systems.
- To ascertain how potential bidders propose to deliver the services and sustain the demand and growth in the requirements.
- To ascertain from bidders on how they will ensure scalability and upgradeability of the infrastructure and solution proposed to be deployed.
- To understand from the bidders as to how they intend to innovate further on this service delivery model.

A Bid Evaluation Committee (BEC) shall be constituted for this project and it shall be the final authority with respect to qualifying a bidder through this RFP. Their decision with regard to the choice of the SI who qualifies through this RFP shall be final and the State Government reserves the right to reject any or all the bids without assigning any reason thereof.

6. SPECIAL CONDITIONS OF REQUEST FOR PROPOSAL :

The Bidder is required to give confirmation of their acceptance of Special Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by Mizoram Police, hereinafter referred to as Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

- 6.1. **Performance Guarantee:** The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (SBI, ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd., etc.) for a sum equal to 2% of the contract value within 15 days of signing the contract with Police Department, Govt. of Mizoram. Performance Bank Guarantee should be valid up to 60 days beyond the commissioning and handing over the system.
- 6.2. **Option Clause:** The contract will have an Option Clause, wherein the Buyer can exercise an option to procure an additional 50% of the original contracted quantity in accordance with the same terms & conditions of the present contract. This will be applicable within the currency of contract. The Bidder is to confirm the acceptance of the same for inclusion in the contract. It will be entirely the discretion of the Buyer to exercise this option or not.
- 6.3. **Repeat Order Clause:** The contract will not have a Repeat Order Clause.
- 6.4. **Tolerance Clause:** To take care of any change in the requirement during the period starting from issue of RFP till placement of the contract, Buyer reserves the right to 20% plus/minus increase or decrease in the quantity of the required goods upto that limit without any change in the terms & conditions and prices quoted by the Seller. While awarding the contract, the quantity ordered can be increased or decreased by the Buyer within this tolerance limit.
- 6.5 **Payment Terms** - It will be mandatory for the Bidders to indicate their bank account numbers and other relevant e-payment details so that payments could be made through PFMS/RTGS/NEFT mechanism or payment through cheques, wherever feasible. The payment will be made as per the following terms, on production of the requisite documents:

The Payment Milestones are as under –

- (a) Payment of 15% will be made as advance to the SI firm at the initial stage of the project immediately on signing of the contract.
- (b) Payment of 20% will be made to the SI after submitting the proof of arrival of all equipment in Aizawl. A period of 15-30 days from signing of the contract will be provided to the SI for this.
- (c) Payment of 30% will be made to the SI after completing 50% of the work. A period of 50 days will be provided to the SI from signing of the contract.

- (d) Remaining 35% of the payment will be released to the SI after completing the work and after handover of live running system. For this a maximum period of 100 days will be provided to the SI. This release will however be linked to proper execution of Post Implementation Support Services.
- (e) AMC Payment Terms : AMC will commence when a Warranty Period of 1 year is over and will be for a period of 2 years. The 1 year warranty period will start from the day the project Go-Live and officially handed over to the Police Department. The AMC payments to the SI will be made in 4 equal instalments on a six monthly basis as under :
- (i) 1st Year – The 1st instalment will be released before the end of the 1st 6 months of the AMC Period. The 2nd instalment will be released before the end of the 2nd 6 months period.
- (ii) 2nd Year – The 3rd instalment will be released before the end of the 3rd 6 months of the AMC Period. The 4th instalment will be released before the end of the 4th 6 months of the AMC Period.

The amount to be released shall be subject to the penalty imposed, if any, as per Para 9.5.

6.6. Taxes and other contingency - Prices quoted by the Bidder shall be final (inclusive of all taxes, duties, insurance, license fee, warranty, transportation, installation, commissioning and other costs). No variation in prices will be allowed under any circumstances during the entire process.

6.7. Two-Bid System.

- In two-bid system, all vendors should submit separate envelopes, one each for the technical bid and financial bid. Technical bid should be opened first and financial bid of only those bidders who are declared technically qualified will be opened. QCBS will be considered for evaluation (ranking). In this case, name of only vendors who have been declared technically qualified will come in the comparative statement.
- This tender will follow the three-cover two-bid system. The technical bid and financial bid should be placed in a separate sealed cover, and both the bids are to be placed together in the third outer cover, which should also be sealed.

7. SCOPE OF THE PROJECT: SUPPLY, INSTALLATION, TESTING, INTEGRATION & COMMISSIONING OF SYSTEM:

- (1) CCTV Surveillance System in identified Police Headquarters, Police Stations, Police Outposts & Check-gates which includes full provisioning of an IP based Integrated Surveillance comprising of CCTV Surveillance System, associated networking equipment and network management system including detailed design, supply, installation, configuration, testing, commissioning, maintenance and provision throughout the Defect Liability.
- (2) Seamless integration of IP Backbone with Smart Surveillance Application consisting of IP Based Surveillance Cameras with Intelligent Monitoring and Recording Software.
- (3) The scope includes Hand Holding Support for 12 months which includes manpower and transportation charges for qualified personnel for period of 12 Months after handing over of the project.
- (4) The bidder should provide Training(s) on CCTV Surveillance, manning of Control Room, basic operations and troubleshooting techniques to nominated Mizoram Police personnel which includes training to junior level Police officers on-site upon completion of installation or as and when required, as the case may be.
- (5) Setting up of Monitor in all identified locations for real time monitoring of Video feed.
- (6) The project involves advanced software installation and integration of the same with the cameras.
- (7) Backup Storage of the Video and Audio for at least 2 months from LPR/NPR Cameras, Bullet Cameras and Dome Cameras equipped with Night Vision capabilities.
- (8) All equipment and materials used shall be standard components, regularly manufactured, regularly utilized in the manufacturer's system for long lasting utilization.
- (9) All systems and components shall have been thoroughly tested and proven in actual use.
- (10) All systems and components shall be covered by minimum 1-year manufacturer warranty duly extendable from the day installation is completed.
- (11) The bidders shall quote separately the prices of supply and installation inclusive of Sales, Service or any other applicable taxes in the BOQ/BOM.
- (12) The Police Hqrs., Govt. of Mizoram has carried out a detailed study and selected the following locations which must be essentially covered in this project. The BoQ accordingly has been prepared keeping these locations in mind. All the 23 locations for installation of the CCTV Surveillance System are as under –

SYSTEM LOCATION & CAMERA DETAILS

Sl.No.	Location	Number of LPR / NPR Camera	Number of IP Camera	Number of IP Cam with Built-in-mic	Total
1	PHQ MAIN GATE	1	2		3
2	PHQ ENTRY/EXIT POINT AT MPRO		5		5
3	PHQ BUILDING BLOCK-A		7		7
4	PHQ COMPOUND (ARYA MESS, ETC.)		4		4
5	CYBER CRIME PS			4	4
6	CRIME & ECONOMIC OFFENCES PS			3	3
7	SPECIAL NARCOTIC PS			4	4
8	ALL WOMEN PS			4	4
9	SELING OUTPOST			4	4
10	EAST LUNG DAR OUTPOST			4	4
11	TUIFAR POLICE CHECK-GATE		3		3
12	ZOKHAWTHAR CHECKGATE		4		4
13	KHANKAWN CHECKGATE	3	1		4
14	DUNGTLANG CHECKGATE		4		4
15	VAIRENGTE CHECKGATE	2	2		4
16	BAIRABI CHECKGATE		4		4
17	SAIPHAI CHECKGATE		3		3
18	PHAISEN CHECKGATE		4		4
19	SAILIAMKAWN CHECKGATE		4		4
20	KANHMUN CHECKGATE		3		3
21	NGOPA CHECKGATE		3		3
22	THINGSAI CHECKGATE		4		4
23	TUISENPхай CHECKGATE		3		3
TOTAL		6	60	23	89

Summary :

Total Nos of locations	23
Total Nos of LPR cameras	6
Total Nos of IP cameras	60
Total Nos of IP cameras with built-in-mic	23
Total Nos of Recorder	23
Total Nos of Monitor	23

8. BIDDERS QUALIFICATION CRITERIA:

The bidder is required to meet the following criteria and submit documentary proof along with the offer:

- (1) The bidder must submit copy of Goods & Services Tax Registration.
- (2) The company whose equipment are to be used by the bidder firm must have a valid ISO 9001:2015 certificate for security services and related technology aspects.
- (3) The bidder firm must have Authorized Distributor/Dealership/ Partnership Certificate from the company concerned.
- (4) The bidder should submit the declaration that bidder has not been blacklisted by any Govt. agency within Mizoram and abroad during last 5 years. The bidder will also submit an undertaking that there is no legal case registered against the company by any Govt. agency during the last 5 years.
- (5) Firm Profile along with bidder's turnover for one financial year (any year during the last three years) must be indicated (Audited balance sheets are required). The turnover refers to a single firm and not the composite turnover of its subsidiaries/sister concern etc. for one year (if audited statement are not there, an interim statement must be provided).
- (6) The bidder must submit the clause by clause compliance statement of the tender.
- (7) The bidder should have completed at least 3 (three) similar single works involving a turnkey system integration project involving installation of a minimum of 50 CCTV cameras in each work. **(Note: Please enclose copy of purchase order(s) with document proof).**
- (8) The bidder should submit OEM certificate/authorization letter of the offered products. Also bidders have to provide certification from OEM that the items quoted by the tenderer are in production and would be serviceable for at-least 05 (five) years from the date of tender, no obsolete products should be quoted. Further, the bidder should submit declaration by the manufacturer on compliance with equipments specification in the RFP.

- (9) The bidder should have full time trained engineer/technician to execute the job professionally on time. List of manpower giving the names, age, experience and qualification should be provided along with the tender response document.
- (10) The bidder should submit 3 (three) Satisfaction of Customer letter for outdoor surveillance done by the registered firm.
- (11) The bidder firm must set up within 3 months after award of contract, a service team headed by a qualified engineer/technician with service vehicle at Aizawl and Lunglei to be called for after sales service in Mizoram after completing the work.
- (12) The bidder firm must provide a letter of confirmation mentioning the materials to be used with full specs/model which will be supplied to the bidder firm by the company.

Note : The bidder must enclose the above supporting documents along with the Evaluation Format (See page no.25 & 26) in the outermost (third) envelope.

9. SERVICE LEVEL AGREEMENT (SLA):

(A) PURPOSE OF SERVICE LEVELS:

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to define the levels of service which shall be provided by the selected bidder to Police Department, Mizoram for the duration of this contract.

The benefits of the SLA are as follows –

- ◆ Solution performance optimization and obtaining desired results efficiently.
- ◆ Standards and operational guidelines for Police Department, Mizoram staff and Bidders.
- ◆ Greater productivity and better use of skills and experience.
- ◆ Faster redressal of defects in the system.

(B) DEFINITIONS:

For better understanding of Bidders, following terminologies are defined below:

- “Availability” shall mean the time for which the services and facilities are available for conducting operations from the equipment hosted at the sites/location, Control room.
- “Downtime” is the time the services and facilities are not available and excludes the scheduled outages planned in advance for different solution components and the link failures that are not control room operator’s responsibility.
- "Helpdesk Support" shall mean the 24x7 centre which shall handle fault reporting.
- “Trouble Ticketing” and related enquiries during the Warranty and contract period.
- “Incident” refers to any event/abnormalities in the functioning of the CCTV, Control room and equipment/Services that may lead to disruption in normal operations of overall solution.
- “Service Window” shall mean the duration for which the facilities and services shall be available. Service window in this case shall be 24x7.

9.1. SLA between the Client and Bidder:

The SLA specifies the expected levels of service to be provided by the SI on 24x7 basis to the various stakeholders and users of the project. This expected level is also called the Baseline. SLA also specifies the limits and metrics for lower performance, which will be entailing a lower payment to the Bidder. It would also specify similar criteria for higher performance. The SLA also specifies the penalties for breach of the SLA metrics.

9.2. SLA Tracking and Penalty

This SLA document provides for minimum level of services required as per contractual obligations based on performance indicators and measurements thereof. The Bidder shall ensure provisioning of all required services while monitoring the performance of the same to effectively comply with the performance levels. The services provided by the Bidder shall be reviewed by the Police Department, Mizoram.

- Regularly check performance of the Bidder against this SLA.
- Discuss escalated problems, new issues and matters still outstanding for resolution.
- Review of statistics related to rectification of outstanding faults and agreed changes.
- Obtain suggestions for changes to improve the service levels.

9.3. SLA Compliance and Monitoring:

At each locations, an Officer-in-Charge will keep a System Maintenance Log Book which is a record of failure of the system including the nature of failure, date and time of booking the complaint, when the machine was put back in to service and total down time. This record will be signed by the SI Service Engineer/Technician and OC concerned once the incidence is resolved. Standard format for the System Maintenance Log Book shall be designed and prepared and supplied to all OC by the SI free of cost.

9.4. Performance Monitoring

A signed copy of *Monitoring Report* prepared from the record of the System Maintenance Log Book of all locations shall be forwarded by the SI to Police Headquarters, Mizoram on quarterly basis (every three months) in support to compliance regulation.

Monitoring Report should contain the following details:

- a. Availability of hardware and solution components.
- b. Total number of events of interest recorded at the locations and action taken.
- c. Report on planned activities like power backups, hardware up-gradation, etc.
- d. Maintenance schedule for the quarter.

9.5. Penalty:

In case of delay or failure to address the incidence(s) beyond the time limits, penalties shall be imposed upon the SI by the Police Department as mentioned below. The penalty amount shall be deducted from the AMC before it is released to the SI. Details of deduction, if any, shall be communicated to the SI.

1. Break-down calls should be attended promptly and in any case on the same day in the same station. Calls from same station after office hours shall be attended to before 12:00 noon of the next day. In case of call of break-down from out-station, the same should be attended within 24 hours excluding journey time. Calls from out-station and after office hours shall be attended to within 36 hours from the time of call. In case of an urgent requirement the fault should be attended on non-working day also.

2. Penalty of Rs.1,000/- per occasion will be imposed if call or request for any service or complaint report is not attended to as per Para 1 of 9.5 above and if the SI fails to pick up or respond to the call for 24 hours on any working day (complaint can be addressed onsite or offsite through help desk).
3. In case of failure to make the system to normal functions, the time required for restoring the system to normal will be intimated to the OC concerned by the SI at the time of attending to the complaint as at Para 1 of 9.5 above. Ordinarily, such required time shall not be more than 03 (three) days from the date of receiving or attending to the break-down call. Penalty will be imposed @ Rs.500/- per day per location w.e.f. the fourth day till the time the system is restored to normal.
4. The SI will keep Police Department, Mizoram informed of the updated contact details (landline no., mobile no. and email ID) of the persons to whom service request required to be forwarded.

9.6. Penalty Exclusion

SLA penalty during operation and maintenance phase will not be applicable to SI under following conditions:

- Failure or malfunctioning of the equipment, systems not supplied/owned/controlled by the SI.
- Circumstances or instances of Force Majeure; or
- Scheduled or preventive maintenance.

9.7. Implementation Phase SLA

CAPACITY BUILDING :

The bidder shall provide Training(s) on CCTV Surveillance, manning of Control Room, basic operations and troubleshooting techniques to nominated Mizoram Police personnel which includes training to junior level Police officers on-site upon completion of installation or as and when required, as the case may be. The below table give details on the Service Level the SI should maintain on capacity building :

Service Level Description	Measurement
Capacity Building	<p>The training time should be a minimum of 3 hours.</p> <p>At least 90% of the trainees within the training program should give a rating of satisfactory or above.</p> <p>This service level training will be monitored and measured through feedback survey to be provided to each attendee within the program.</p> <p>If the training quality in the program in each location falls below the rating stated above, it will be treated as one (1) violation for which Rs. 1000/- per violation will be levied to the SI.</p>

9.8. Post Implementation Support Services

As part of the post implementation services, the SI shall provide support for the software, hardware, and other infrastructure provided as part of this RFP. SI shall provide three types of post-implementation support services, namely :

1. Free Handholding Services (12 months, free of cost, from the day the project goes live and handed over)
 - Operations and maintenance services for the systems and related infrastructure supplied and commissioned by the SI.
 - Helpdesk for attending call related to faults.
 - Software maintenance and support services.
 - Application functional support services.
 - It goes concurrently with the warranty period.
2. Warranty support for 12 months after go-live and before AMC period.
 - SI shall provide a comprehensive warranty and on-site free service warranty for 1 year from the date of Go Live and handed over to Police Department. It goes concurrently with Free Handholding Support.
 - SI shall provide the comprehensive manufacturer's warranty in respect of proper design, quality and workmanship of all hardware, equipment, accessories, etc. covered by the RFP. SI must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this RFP against any manufacturing defects during the warranty period.
 - SI shall provide the performance warranty in respect of performance of the installed hardware and software to meet the performance requirements and service levels in the RFP.
 - SI is responsible for sizing and procuring the necessary hardware and software licenses as per the performance requirements provided in the RFP. During the warranty period SI shall replace or augment or procure higher-level new equipment or additional licenses at no additional cost to the state in case the procured hardware or software is not adequate to meet the service levels.
 - During the warranty period SI shall maintain the systems and repair/replace at the installed site, at no charge to state, all defective components that are brought to the SI's notice.
 - The SI shall as far as possible, repair the equipment at site.
 - In case any hard disk drive of any server, NAS, or client machine is replaced during warranty / AMC the unserviceable HDD will be property of state and will not be returned to SI.
 - SI shall monitor warranties to check adherence to preventive and repair maintenance terms and conditions.
 - The SI shall ensure that the warranty complies with the agreed Technical Standards, Security Requirements, Operating Procedures, and Recovery Procedures.
 - SI shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met.
 - Any component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA).

3. Annual Maintenance Contract (AMC) for 2 years from the date that warranty is over (AMC Charges % will be quoted by the bidder and will form part of the financial bid for this RFP response). AMC will be a part of the Work Order, the payment terms have already been indicated at 6.5. (e).

As part of the AMC services, SI shall provide:

- SI shall maintain data regarding entitlement for software upgrades, enhancements, refreshes, replacements and maintenance.
- If the Operating System or additional copies of Operating System are required to be installed/reinstalled/de-installed, the same should be done as part of AMC.
- SI should carry out any requisite adjustments/changes in the configuration for implementing different versions of Application Software.
- SI shall provide patches to the licensed software including the software, operating system, databases and other applications.
- Software License Management. The SI shall provide for software license management and control. SI shall maintain data regarding entitlement for software upgrades, enhancements, refreshes, replacements, and maintenance.
- SI shall provide complete manufacturer's technical support for all the licensed software problems and/or questions, technical guidance, defect and non-defect related issues. SI shall provide a single-point-of-contact for software support and provide licensed software support including but not limited to problem tracking, problem source identification, problem impact (severity) determination, bypass and recovery support, problem resolution, and management reporting.

10. QUALIFICATION EVALUATION FORMAT

Relevant/Supporting Documents to be submitted by Bidder in accordance with "Evaluation of Qualification for the Bids:"

Sl. No.	Parameters	Supporting Documents Required	Endorsed
1	Receipt of EMD	Receipt	
2	The equipment used by the bidder firm must have a valid ISO 9001:2015 certificate for security services and related technology aspects.	ISO Certificate Copy	
3	The bidder firm must have Authorized Distributor/Dealership/Partnership certificate from the company.	Certificates	
4	The bidder should submit the declaration that bidder has not been blacklisted by any Govt. agency within Mizoram and abroad during last 5 years. The bidder will also submit an undertaking that there is no legal case registered against the company by any Govt. agency during the last 5 years.	Declaration / Undertaking	
5	Firm Profile along with bidder's turnover for any one financial year during the last three years must be indicated (Audited balance sheet is required). The turnover refers to a single firm and not the composite turnover of its subsidiaries/sister concern etc. for one year (if audited results are not there, an interim statement must be provided)	Financial Statements	
6	The bidder must submit the clause by clause compliance statement of the tender.	Compliance Statement	
7	The bidder should have completed at least 3 (three) similar single works involving a turnkey system integration project involving installation of a minimum of 50 CCTV cameras in each work.	Purchase/Work Order	
8	A) The bidder should submit OEM certificate/authorization letter of the offered products. Also bidders have to provide certification from OEM that the items quoted by the bidder firm are in production and would be serviceable for at-least 05 (five) years from the date of tender, no obsolete products should be quoted. B) The bidder should submit declaration by the manufacturer on compliance with specification of equipment in the RFP.	Certificates	
9	The bidder should have full time Trained Engineer to execute the job professionally on time. List of manpower giving the names, age, experience and qualification should be provided along with the tender response document.	Details of personnel	

10	The bidder should submit 03 (three) Satisfaction of Customer letter for outdoor surveillance done by the registered firm.	Certificates	
11	The bidder firm must set up within 3 months after award of contract, a service team with service vehicle at Aizawl and Lunglei to be called for after sales service after completing the work.	Details	
12	The bidder firm must provide a letter of confirmation mentioning the materials to be used with full specs/model which will be supplied to the bidder firm by the company.	Details	

Note : Only those bidders who have fulfilled the above 12 criteria satisfactorily will be declared qualified.

11. TECHNICAL BID FORMAT

The technical specifications of models/products for meeting the desired functional requirement are listed bellow –

11.1. REGULAR IP CAMERA

Description	Minimum Specifications	Offered Specifications	Make/Model
Image Sensor	1/1.8" Progressive Scan CMOS		
Min. Illumination	Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with white light		
Shutter Speed	1/3 s to 1/100,000 s		
Slow Shutter	Yes		
P/N	P/N		
Wide Dynamic Range	130 dB		
Angle Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°		
Lens Type	Fixed focal lens, 2.8, 4, and 6 mm optional		
Iris Type	Fixed		
Lens Type & FOV	2.8 mm, horizontal FOV 112°, vertical FOV 61°, diagonal FOV 134° 4 mm, horizontal FOV 95°, vertical FOV 51°, diagonal FOV 115° 6 mm, horizontal FOV 58°, vertical FOV 31°, diagonal FOV 69°		
Depth of Focus	2.8mm, 2.5 m to ∞ 4 mm, 3.5 m to ∞ 6 mm, 7.5 m to ∞		
Aperture	F1.0		
Lens Mount	M16		
DORI	2.8 mm, D: 58 m, O: 23 m, R: 11 m, I: 2 m 4 mm, D: 77 m, O: 30 m, R: 15 m, I: 7 m 6 mm, D: 115 m, O: 45 m, R: 23 m, I: 11 m		
Supplement Light Type	White Light		
White Light Range	40 m		
Smart Supplement Light	Yes		
Max. Resolution	2688 × 1520		
Main Stream	50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)		
Sub Stream	50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360) 60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360)		
Third Stream	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)		
Video Compression	Main stream: H.265/H.264/H.265+/H.264+ Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264		
Video Bit Rate	32 Kbps to 8 Mbps		

H.264 Type	Baseline Profile/Main Profile/High Profile		
H.265 Type	Main Profile		
H.264+	Main stream supports		
H.265+	Main stream supports		
Bit Rate Control	CBR/VBR		
Scalable Video Coding (SVC)	H.264 and H.265 encoding		

11.2. IP CAMERA WITH BUILT-IN-MIC

Description	Minimum Specifications	Offered Specifications	Make/Model
Image Sensor	1/1.8" Progressive Scan CMOS		
Min. Illumination	Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with white light		
Shutter Speed	1/3 s to 1/100,000 s		
Slow Shutter	Yes		
P/N	P/N		
Wide Dynamic Range	130 dB		
Angle Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°		
Lens Type	Fixed focal lens, 2.8, 4, and 6 mm optional		
Iris Type	Fixed		
Lens Type & FOV	2.8 mm, horizontal FOV 112°, vertical FOV 61°, diagonal FOV 134° 4 mm, horizontal FOV 95°, vertical FOV 51°, diagonal FOV 115° 6 mm, horizontal FOV 58°, vertical FOV 31°, diagonal FOV 69°		
Depth of Focus	2.8mm, 2.5 m to ∞ 4 mm, 3.5 m to ∞ 6 mm, 7.5 m to ∞		
Aperture	F1.0		
Lens Mount	M16		
DORI	2.8 mm, D: 58 m, O: 23 m, R: 11 m, I: 2 m 4 mm, D: 77 m, O: 30 m, R: 15 m, I: 7 m 6 mm, D: 115 m, O: 45 m, R: 23 m, I: 11 m		
Supplement Light Type	White Light		
White Light Range	40 m		
Smart Supplement Light	Yes		
Max. Resolution	2688 × 1520		
Main Stream	50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)		
Sub Stream	50 Hz: 25 fps (1280 × 720, 640 × 480, 640 × 360) 60 Hz: 30 fps (1280 × 720, 640 × 480, 640 × 360)		
Third Stream	50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360) 60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)		

Video Compression	Main stream: H.265/H.264/H.265+/H.264+ Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264		
Video Bit Rate	32 Kbps to 8 Mbps		
H.264 Type	Baseline Profile/Main Profile/High Profile		
H.265 Type	Main Profile		
H.264+	Main stream supports		
H.265+	Main stream supports		
Bit Rate Control	CBR/VBR		
Scalable Video Coding (SVC)	H.264 and H.265 encoding		
Environment Noise Filtering	Yes		
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz		
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/ MP2L2/PCM/MP3/AAC-LC		
Audio Bit Rate	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)		
Simultaneous Live View	Up to 6 channels		
API	Open Network Video Interface (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK		
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SNMP, ARP, WebSocket, WebSockets		
User/Host	Up to 32 users. 3 user levels: administrator, operator and user		
Security	Password protection, complicated password, HTTPS encryption, IP address filter, Security Audit Log, basic and digest authentication for HTTP/HTTPS, TLS 1.1/1.2, WSSE and digest authentication for Open Network Video Interface		
SNR	≥ 52 dB		
Day/Night Switch	Auto, Schedule		
Image Enhancement	BLC, HLC, 3D DNR		
Image Parameters Switch	Yes		
Image Settings	Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser		
Built-in Microphone	Yes		
On-board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB		
Hardware Reset	Yes		
Communication Interface	1 RJ45 10 M/100 M self-adaptive Ethernet port		
Basic Event	Motion detection (human and vehicle targets classification), video tampering alarm, exception		

11.3. LICENSE / NUMBER PLATE RECOGNITION (LPR / NPR) CAMERA

Description	Minimum Specifications	Offered Specifications	Make/Model
Image Sensor	1/1.8" progressive scan CMOS		
Min. Illumination	Color: 0.001 Lux @ (F1.2, AGC ON), 0.0005 Lux with IR		
Shutter Speed	1/50 s to 1/100,000 s		
Slow Shutter	Yes		
Day & Night	IR Cut Filter		
Digital Noise Reduction	3D DNR		
WDR	120 dB		
Focal Length	8-32 mm		
Aperture	F1.6-1.65		
Focus	Auto		
Auto-iris	DC drive		
FOV	Horizontal FOV: 39.7° to 15.9°; Vertical FOV: 22.3° to 9.1°; Diagonal FOV: 45.8° to 18.1°		
IR Range	Up to 100 m		
Wavelength	850 nm		
Video Compression	Main stream: H.265/H.264/MJPEG Sub-stream: H.265/H.264/MJPEG		
H.264 Type	Baseline profile/Main profile/High profile		
H.265 Type	Baseline profile/Main profile/High profile		
Video Bit Rate	32 Kbps to 16 Mbps		
Audio Compression	G.711/G.722.1		
Audio Bit Rate	8 Kbps (G.711) /16 Kbps (G.722.1)		
Recognition	License plate recognition		
Smart Function	Vehicle type classification, color identification, no-plate vehicle capture, vehicle driving direction detection		
No License Plate Detection	Supported		
Motorcycle LPR	Supported		
Vehicle Type	Car/Van/Bus/Truck/Others		
Capture Speed Range	5 to 120 km/h		
Max. Resolution	1920 × 1080		
Main Stream	50 Hz: 50 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288) 60 Hz: 60 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288)		
Sub-Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288)		
Third Stream	50 Hz: 25 fps (1280 × 720, 704 × 576, 352 × 288) 60 Hz: 30 fps (1280 × 720, 704 × 480, 640 × 480)		
Image Enhancement	BLC, HLC, 3D DNR		

Image Settings	Rotation mode, saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable via client software or web browser.		
Video Compression	H.264 and H.265 encoding		
Day/Night Switch	Auto/Scheduled/Triggered by alarm in		
Picture Overlay	Logo picture can be overlaid on video with 128 × 128 in 24-bit bmp format		
S/N Ratio	≥ 52 dB		
Network Storage	microSD/TF card (128 GB), local storage and CVR, NVR, ANR		
Alarm Trigger	HDD Error, network disconnected, IP address conflicted, vehicle detector exception, traffic light detector exception		
Protocols	TCP/IP, HTTP, HTTPS, FTP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, IPv6, UDP		
Security Measures	Password protection, HTTPS encryption, digest authentication for HTTP/HTTPS, digest authentication for ONVIF (Version 2.1)		
General Function	One-key reset, three streams, heartbeat, password protection, watermark		
Simultaneous Live View	Up to 20 channels		
User/Host	Up to 32 users, 3 user levels: administrator, operator, and user		
Audio	Yes		
Communication Interface	1 RJ45 10M/100M/1000M Ethernet interface 2 RS-485 interfaces 1 RS-232 port		
Alarm	2 input interfaces, 2 output interfaces		
Video Output	Network		
On-Board Storage	Built-in microSD/TF card, up to 128 GB		
Reset Button	Yes		
Operating Conditions	Temperature: -30 °C to +70 °C (-22 °F to +158 °F) , Humidity: 95% or less (non-condensing)		
Power Supply	12 VDC to 24 VDC ± 20%		
Protection Level	IP67, IK10		

11.4. 4 CHANNEL NETWORK VIDEO RECORDER (NVR)

Description	Minimum Specifications	Offered Specifications	Make/Model
AI by Device	Facial recognition, perimeter protection, motion detection 2.0		
AI by Camera	Facial recognition, perimeter protection, throwing objects from building, motion detection 2.0, ANPR, VCA		
Facial Detection and Analytics	Face picture comparison, human face capture, face picture search		
Face Picture Library	Up to 16 face picture libraries, with up to 20,000 face pictures in total (each picture ≤ 4 MB, total capacity ≤ 1 GB)		

Facial Detection and Analytics Performance	1-ch, 8 MP		
Face Picture Comparison	2-ch		
Motion Detection by device	All channels, 4 MP (when enhanced SVC mode is enabled, up to 8 MP) video analysis for human and vehicle recognition to reduce false alarm		
Motion Detection by camera	All channels		
Perimeter protection by device	1-ch, 4 MP (HD network camera, H.264/H.265) video analysis for human and vehicle recognition to reduce false alarm		
Perimeter protection by camera	All channels		
IP Video Input	4-ch		
Incoming Bandwidth	40 Mbps		
Outgoing Bandwidth	80 Mbps		
HDMI Output	1-ch, 4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1600 × 1200/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz		
VGA Output	1-ch, 1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz		
Video Output Mode	HDMI1/VGA simultaneous output		
CVBS Output	N/A		
Audio Output	1-ch, RCA (Linear, 1 KΩ)		
Two-Way Audio	1-ch, RCA (2.0 Vp-p, 1 KΩ, using the audio input)		
Decoding Format	H.265/H.265+/H.264+/H.264		
Recording Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2 CIF/CIF/QCIF		
Synchronous Playback	4-ch		
Stream Type	Video, Video & Audio		
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726/AAC		
Remote Connection	128		
API	ONVIF (profile S/G); SDK; ISAPI		
Compatible Browser	IE11, Chrome V57, Firefox V52, Safari V12, Edge V89, or above version		
Network Protocol	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS		
Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface		
SATA	1 SATA interface		
Capacity	Up to 10 TB capacity for each HDD		
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 2.0		
Power Supply	12 VDC, 1.5 A		
Consumption	≤ 10 W (without HDD)		
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)		
Working Humidity	10% to 90%		

11.5. 8 CHANNEL NETWORK VIDEO RECORDER (NVR)

Description	Minimum Specifications	Offered Specifications	Make/Model
AI by Device	Facial recognition, perimeter protection, motion detection 2.0		
AI by Camera	Facial recognition, perimeter protection, throwing objects from building, motion detection 2.0, ANPR, VCA		
Facial Detection and Analytics	Face picture comparison, human face capture, face picture search		
Face Picture Library	Up to 16 face picture libraries, with up to 20,000 face pictures in total (each picture ≤ 4 MB, total capacity ≤ 1 GB)		
Facial Detection and Analytics Performance	1-ch, 8 MP		
Face Picture Comparison	4-ch		
Motion Detection by device	All channels, 4 MP (when enhanced SVC mode is enabled, up to 8 MP) video analysis for human and vehicle recognition to reduce false alarm		
Motion Detection by camera	All channels		
Perimeter protection by device	1-ch, 4 MP (HD network camera, H.264/H.265) video analysis for human and vehicle recognition to reduce false alarm		
Perimeter protection by camera	All channels		
IP Video Input	8-ch		
Incoming Bandwidth	80 Mbps		
Outgoing Bandwidth	80 Mbps		
HDMI Output	1-ch, 4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1600 × 1200/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz		
VGA Output	1-ch, 1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz		
Video Output Mode	HDMI/VGA independent output		
CVBS Output	N/A		
Audio Output	1-ch, RCA (Linear, 1 KΩ)		
Two-Way Audio	1-ch, RCA (2.0 Vp-p, 1 KΩ, using the audio input)		
Decoding Format	H.265/H.265+/H.264+/H.264		
Recording Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2 CIF/CIF/QCIF		
Synchronous Playback	8-ch		
Stream Type	Video, Video & Audio		
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726/AAC		
Remote Connection	128		
API	ONVIF (profile S/G); SDK; ISAPI		
Compatible Browser	IE11, Chrome V57, Firefox V52, Safari V12, Edge V89, or above version		
Network Protocol	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS		

Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface		
SATA	1 SATA interface		
Capacity	Up to 10 TB capacity for each HDD		
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 2.0		
Power Supply	12 VDC, 1.5 A		
Consumption	≤ 10 W (without HDD)		
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)		
Working Humidity	10% to 90%		

11.6. 4 PORT POWER OVER ETHERNET (PoE)

Description	Minimum Specifications	Offered Specifications	Make/Model
Ports	4 × Gigabit PoE port, 1 × Gigabit RJ45 port		
MAC Address Table	2 K		
Switching Capacity	10 Gbps		
Packet Forwarding Rate	7.44 Mpps		
Internal Cache	1 Mbits		
PoE Standard	IEEE 802.3af; IEEE 802.3at		
PoE Power Pin	End-span: 1/2(+), 3/6(-)		
PoE Port	PoE: Ports 1 to 4		
Max. Port Power	30 W		
PoE Power Budget	35 W		
Shell	Metal material		
Operating Temperature	-10 °C to 55 °C (14 °F to 131 °F)		
Storage Temperature	-40 °C to 85 °C (-40 °F to 185 °F)		
Operating Humidity	5% to 95% (no condensation)		
Relative Humidity	5% to 95% (no condensation)		
Power Supply	48 V DC, 0.8 A		
Max. Power Consumption	38 W		
Power Consumption in Idle	3 W		
Installation Mode	Desk-Mounted, Wall-Mounted		
Surge Protection	6 kV		

11.7. 8 PORT POWER OVER ETHERNET (PoE)

Description	Minimum Specifications	Offered Specifications	Make/Model
Ports	8 × Gigabit PoE port, 1 × Gigabit RJ45 port, 1 × Gigabit fiber optical port		
MAC Address Table	4 K		
Switching Capacity	20 Gbps		
Packet Forwarding Rate	14.88 Mpps		
Internal Cache	1.5 Mbits		

PoE Standard	IEEE 802.3af;IEEE 802.3at		
PoE Power Pin	End-span: 1/2(+), 3/6(-)		
PoE Port	PoE: Ports 1 to 8		
Max. Port Power	30 W		
PoE Power Budget	58 W		
Shell	Metal material		
Operating Temperature	-10 °C to 55 °C (14 °F to 131 °F)		
Storage Temperature	-40 °C to 85 °C (-40 °F to 185 °F)		
Operating Humidity	5% to 95% (no condensation)		
Relative Humidity	5% to 95% (no condensation)		
Power Supply	48 V DC, 1.35 A		
Max. Power Consumption	65 W		
Power Consumption in Idle	7 W		
Installation Mode	Desk-Mounted, Wall-Mounted		
Surge Protection	6 kV		

11.8. 4TB SURVEILLANCE HARD DISK DRIVE

Description	Minimum Specifications	Offered Specifications	Make/ Model
Formatted capacity	4TB		
Form factor	3.5-inch		
Advanced Format(AF)	Yes		
RoHS compliant ⁶	Yes		
Cameras supported	Upto 64		
Drive Bays Supported	8+		
Firmware Feature Name	All Frame 4K		
Tarnish resistant components	Yes		
Interface transfer rate (max)	6 Gb/s		
Host to/from drive (sustained)	150 MB/s		
Cache (MB)	64		
Performance Class	5400RPM		
Load/unload cycles	300,000		
Annualized workload rating	180TB/yr		
MTBF	1,000,000		
Limited warranty (years)	3		
Average power requirements (W)	0.4 to 5.1W		
Operating temperature	0 to 65 °C		

11.9. 8TB SURVEILLANCE HARD DISK DRIVE

Description	Minimum Specifications	Offered Specifications	Make/ Model
Formatted capacity	8TB		
Form factor	3.5-inch		
Advanced Format(AF)	Yes		
RoHS compliant ⁶	Yes		
Cameras supported	Upto64		
Drive Bays Supported	8+		
Firmware Feature Name	AllFrame4K		
Tarnish resistant components	Yes		
Interface transfer rate (max)	6 Gb/s		
Cache(MB)	256		
Performance Class	5400RPM		
Load/unload cycles	300,000		
Annualized workload rating	180TB/yr		
MTBF	1,000,000		
Limited warranty(years)	3		
Average power requirements (W)	0.4 to 5.1W		
Operating temperature	0 to 65 °C		

11.10. MONITOR

Description	Minimum Specifications	Offered Specifications	Make/ Model
Display size	61.0cm (27 in) diagonal		
Display type	IPS with LED backlight, anti-glare		
Panel active area	52.7 x 33.6 cm (20.7 x 11.7 in)		
Brightness	300 nits		
Color gamut	72%		
Color support	Up to 16.7 million colors with the use of FRC technology		
Pixel pitch	0.2745 x 0.2745 mm 93 PPI		
Inputs	1 VGA, 1 HDMI		
Viewing angle	Horizontal viewing angle: 178 degrees Vertical viewing angle: 178 degrees		
Scan range	Horizontal: 30-86 kHz Vertical: 48-75 Hz		
Recommended resolution (H x V)	1920 x 1080 at 60 Hz (FHD)		

Aspect ratio	16:9 1000:1		
Static contrast ratio	Up to		
Dynamic contrast ratio	Up to 10,000,000:1		
Response time	5 ms gray-to-gray (GtG) Typical: 14 ms GtG Maximum: 28 ms GtG		
Power consumption	22 Watts maximum		
Tilt	-5 to +25 degrees		
Power supply	External		
Dimensions	W x D x H (unpacked): 54.1 x 18.0 x 40.9 cm (21.3 x 7.1 x 16.1 in)		
Weight	Unpacked: 2.8 Kg (6.26 lbs)		

11.11. UNINTERRUPTIBLE POWER SUPPLY

Description	Minimum Specifications	Offered Specifications	Make/ Model
Capacity	1KVA		
DC voltage system	36 VDC		
Input voltage range	110VAC+5% - 300VAC+5%		
Frequency range	40Hz - 70Hz		
Phase	Single phase with ground		
Power factor	≥0.99 @ full load		
Output voltage	200/ 208/ 220/ 230/ 240VAC		
AC voltage regulator	±1% (Battery Mode)		
Frequency range (Battery Mode)	50Hz+0.25Hz OR 60Hz+0.3Hz		
Current crest ratio	3:1		
Harmonic distortion	<2% THD (Linear Load) 4% THD (N on-Linear Load)		
Transfer time	AC mood to battery mode 0/ Inverter to bypass: <4ms (Typical 2.5ms)		
Waveform (Battery Mode)	Pure sinewave		
Efficiency (AC mode / battery mode)	88% / 83%		
Battery type & number	SMF 12V / 9AH X 2 Nos. (In-Built Batteries)		

Charging current	1A		
Operating humidity / temp	20-95% RH @ 0-40°C (N on-Condensing)		
Noise level	Less than 50dBA @ 1 Meter (with fan speed control)		
Display	LCD display indications		

11.12. 2U NVR RACK

Description	Minimum Specifications	Offered Specifications	Make/ Model
Rack Size	2U		
Dimension	140mm x 450mm x 350mm (H*W*D)		
Type	Wall Mount		
Material	High gauge sheet metal(iron) and powder coating		
Cooling	DC 12V 4010 Cooling Fan Size - 40X40X10 mm		
Included Components	Single Door, 2 keys, Surge Protector, Nylon Plastic sleeves, Screws		
Accessories	3 Socket Power Strip		

11.13. CAT6 CABLE

Description	Minimum Specifications	Offered Specifications	Make/ Model
Category	6 UTP Solid cable		
Conductor	Conductor: 23 AWG (Solid)		
Conductor Meta	Conductor Meta: Bare Copper		
Insulation Material	HD-PE		
OD	6.1mm ±0.2		
Resistance Unbalance	5% Max		
Capacitance Unbalance	330pF/100m		
Delay Skew	<45nS		

The evaluation of technical score is given below :

The weight given to the Technical (T) and Financial (P) proposal are : T:P = 70% : 30%

Evaluation Criteria / Sub-Criteria and Marking System

Sl.No.	Criteria	Level	Score	Max Score	Bidder's Score
1	Availability of Office in Mizoram (at Aizawl & Lunglei)	Can produce proof of office within 3 months from award of contract	2	5	
		Available	5		
2	Technical Team size	<10 persons	0	5	
		10 to 20 persons	3		
		>20 persons	5		
3	Average annual Turnover in last 3 yrs i.e. Financial Year 2020-21, 2021-22,2022-23	50 - 100 lakhs	2	5	
		100 – 150 lakhs	3		
		150 – 200 lakhs	5		
4	Certificate/authorization letter of the offered products from the Manufacturer		5	5	
5	Experience of CCTV Project under Govt. of Mizoram along with Supply order	50 - 100 lakhs	2	5	
		100 – 200 lakhs	3		
		200 – 250 lakhs	5		
6	Experience of CCTV Project under Central Govt / Society/ Institution	20 – 30 lakhs	2	5	
		30 - 50 lakhs	3		
		50 – 100 lakhs	5		
7	Turnkey basis successful project experience with Mizoram Police involving installation of minimum of 50 CCTV cameras in each work with supply/work order		10	10	
8	Evaluation of equipment/compliance			60	
	(a) IP Camera		8		
	(b) IP Camera with Built-in-Mic		8		
	(c) LPR/NPR Camera		8		
	(d) Monitor		6		
	(e) 4 Channel NVR		5		
	(f) 8 Channel NVR		5		
	(g) 4 Port PoE		4		
	(h) 8 Port PoE		4		
	(i) 4 TB HDD		4		
	(j) 8 TB HDD		4		
(k) UPS		4			
	TOTAL			100	

Note : The method of selection that shall apply for selecting a System Integrator from those who submit their proposal is Quality and Cost Based Selection (QCBS). The total score is calculated by weighing the technical and financial scores and adding them as per the formula and instructions specified below :

$$B_n = 0.70 * T_n + 0.30 * (C_{min} / C_b) * 100$$

Where B_n = overall score of bidder under consideration.

T_n = Technical score of the bidder under consideration.

C_b = Actual price quoted by the bidder.

C_{min} = Lowest price amongst the financial bids.

12. PRICE BID FORMAT:

The Price Bid Format is attached below with this RFP and bidders are required to fill this up correctly with full details.

DESCRIPTION	QUANTITY	UNIT	UNIT RATE WITH TAXES	AMOUNT WITH TAXES
CCTV EQUIPMENT				
Regular IP Camera	60	Nos		
IP Camera with Built-In-Mic	23	Nos		
LPR / NPR Camera	6	Nos		
4 Channel NVR	21	Nos		
8 Channel NVR	2	Nos		
27 " Monitor	23	Nos		
4 Port PoE	21	Nos		
8 Port PoE	2	Nos		
4TB HDD	21	Nos		
8TB HDD	2	Nos		
POWER BACKUP				
Uninterruptible Power Supply	23	Nos		
ACCESSORIES				
2U NVR Rack	23	Nos		
CAT 6 Cable	12000	Mtr		
RJ 47 connector	300	Nos		
Round Clip	12000	Nos		
Power Strip	23	Nos		
Electrical Conduit	23	Nos		
INSTALLATION & COMMISSIONING CHARGES				
Supply, Installation, Integration, Project Management Charges				
AMC CHARGES				
AMC Charges for 24 Months				
TOTAL (Supply + Installation + Service)				

Note: The detailed pricing for each component will be filled in by the bidders in the Bill of Quantity mentioned in the RFP which will be attached along with the price bid.

13. BANK GUARANTEE PROFORMA

Whereas..... (hereinafter called the “tenderer”) has submitted their offer dated..... for the supply of (hereinafter called the “tender”) against the purchaser’s tender enquiry No. KNOW ALL MEN by these presents that WE..... of having our registered office atare bound unto..... (hereinafter called the “Purchaser) in the sum of..... for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this.....day of.....2023.

THE CONDITIONS OF THIS OBLIGATION ARE:

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity –
 - (a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - (b) Fails or refuses to accept/ execute the contract.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

When communication is received from or on behalf of Mizoram Police to invoke this Bank Guarantee, the amount will be remitted to in favour of **Office of Director General of Police , Police Headquarters, Khatla, Aizawl.**

(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

14. BILL OF MATERIAL

Approved Price Bid of the successful bidder as indicated in Para 12 will form the detailed Bill of Material.