



GOVERNMENT OF MIZORAM  
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## **NOTICE INVITING EXPRESSION OF INTEREST**

Sealed EOI are invited in two-bid system, i.e. Technical Bid and Price/ Commercial bid by the undersigned for selection of 'System Integrator for installation of CCTV Surveillance System in 20 locations under Mizoram Police – 2023' from the bonafide firms. EOI will be received upto 21.06.2023 at 1200 hrs and will be opened on the same day at 1400 hrs.

Details of the above, terms and conditions can be had from the office of the undersigned during office hours or Police Website [www.police.mizoram.gov.in](http://www.police.mizoram.gov.in)

  
(C. LALTHANMAWIA) IPS, AIGP (Mod.)  
for Director General of Police  
Mizoram, Aizawl

No.B.13011/PHQ/PROV/CSS/PR/CCTV/22/ 88 : Dated Aizawl, the 19 May, 2023



**EXPRESSION OF INTEREST  
FOR SELECTION OF SYSTEM INTEGRATOR  
FOR  
INSTALLATION OF CCTV SURVEILLANCE SYSTEM AT 20  
LOCATIONS UNDER MIZORAM POLICE - 2023**

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

## CALENDAR OF EVENTS AND OTHER RELEVANT DETAILS

Sl. No.	Information	Details
1	EOI No and Date	<b>EOI No.1 of 2023-24</b>
2	Non Refundable Tender Cost	Rs. 1,500/-
3	Sale of Document	EOI documents can be purchased at Provisioning Branch, PHQ, Aizawl or downloaded from Mizoram Police Website <a href="http://www.police.mizoram.gov.in">www.police.mizoram.gov.in</a>
4	EMD	2% of bid amount
5	Last date (deadline) for receipt of EOI	21.06.2023 upto 1200 hrs
6	Place, Time and Date of opening of Technical / Financial EOI received	Office of AIGP (Mod.) , Police Hqrs, Khatla, Aizawl on 21.06.2023 at 1400hrs
7	Contact Person for queries	AIGP (Mod.), Police Hqrs., Khatla, Aizawl, Phone No: 0389 – 2335225
8	Addressee and Address at which EOI 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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<b>Name of the Project / Initiative</b>	<b>Installation of CCTV Surveillance System at 20 locations under Mizoram Police - 2023</b>
<b>Locations</b>	<ol style="list-style-type: none"> <li>1. PHQ Main Gate</li> <li>2. PHQ Entry/Exit point at MPRO</li> <li>3. PHQ Building Block-A</li> <li>4. Cyber Crime PS</li> <li>5. Crime &amp; Economic Offences PS</li> <li>6. Special Narcotic PS</li> <li>7. All Women PS</li> <li>8. Tuifar Police Checkgate, Aizawl District</li> <li>9. Zokhawthar Checkgate (ICP), Champhai District</li> <li>10. Khankawn Checkgate, Champhai District</li> <li>11. Dunglelang Checkgate, Champhai District</li> <li>12. Vairengte Checkgate (ILP), Kolasib District</li> <li>13. Bairabi Checkgate (ILP), Kolasib District</li> <li>14. Saiphai Checkgate (ILP), Kolasib District</li> <li>15. Phaisen Checkgate (ILP), Kolasib District</li> <li>16. Sailiamkawn Checkgate, Serchhip District</li> <li>17. Kanhmun Checkgate (ILP), Mamit District</li> <li>18. Ngopa Checkgate, Saitual District</li> <li>19. Thingsai Checkgate, Hnahthial District</li> <li>20. Tuisenphai Checkgate, Khawzawl District</li> </ol>
<b>Project Implementation Period</b>	<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. Cyber Crime PS
5. Crime & Economic Offences PS
6. Special Narcotic PS
7. All Women PS
8. Tuifar Police Checkgate, Aizawl District
9. Zokhawthar Checkgate (ICP), Champhai District
10. Khankawn Checkgate, Champhai District
11. Dunglelang Checkgate, Champhai District
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20. 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"> <li>1. PHQ Main Gate</li> <li>2. PHQ Entry/Exit point at MPRO</li> <li>3. PHQ Building Block-A</li> <li>4. Cyber Crime PS</li> <li>5. Crime &amp; Economic Offences PS</li> <li>6. Special Narcotic PS</li> <li>7. All Women PS</li> <li>8. Tuifar Police Checkgate, Aizawl District</li> <li>9. Zokhawthar Checkgate (ICP), Champhai District</li> <li>10. Khankawn Checkgate, Champhai District</li> <li>11. Dungtlang Checkgate, Champhai District</li> <li>12. Vairengte Checkgate (ILP), Kolasib District</li> <li>13. Bairabi Checkgate (ILP), Kolasib District</li> <li>14. Saiphai Checkgate (ILP), Kolasib District</li> <li>15. Phaisen Checkgate (ILP), Kolasib District</li> <li>16. Sailiamkawn Checkgate, Serchhip District</li> <li>17. Kanhmun Checkgate (ILP), Mamit District</li> <li>18. Ngopa Checkgate, Saitual District</li> <li>19. Thingsai Checkgate, Hnahthial District</li> <li>20. Tuisenphai Checkgate, Khawzawl District</li> </ol>
No. of IP Cameras	56
No. of IP Cameras With Built-in-mic	15
No. of LPR Cameras	6
Total No. of Cameras	77
Command Control Centre	No. of NVR: 18 Nos. of 4-ch and 2 Nos. of 8-ch No. of PoE: 18 Nos. of 4-port and 2 Nos. of 8-port No. of HDD: 18 Nos. of 4TB and 2 Nos. of 8TB No. of 2U Rack: 20 Nos. No. of Monitor: 20 Nos. of 24inch LCD No. of UPS: 20 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 Plate Recognition (LPR) 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. 24" 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 Plate Recognition (LPR) 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:

<b>DELIVERABLES / MILESTONE</b>	<b>DURATION</b>
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 20 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 Expression of Interest (EOI)**

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 20 locations through a competitive bidding process for which the expression of interest (EOI) is issued. This EOI 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 EOI 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 20 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 EOI. Their decision with regard to the choice of the SI who qualifies through this EOI 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 EOI:

The Bidder is required to give confirmation of their acceptance of Special Conditions of the EOI 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 (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) 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 EOI 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 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) 1<sup>st</sup> Year – The 1<sup>st</sup> instalment will be released before the end of the 1<sup>st</sup> 6 months of the AMC Period. The 2<sup>nd</sup> instalment will be released before the end of the 2<sup>nd</sup> 6 months period.
- (ii) 2<sup>nd</sup> Year – The 3<sup>rd</sup> instalment will be released before the end of the 3<sup>rd</sup> 6 months of the AMC Period. The 4<sup>th</sup> instalment will be released before the end of the 4<sup>th</sup> 6 months of the AMC Period.

The amount to be released shall be subject to the penalty imposed, if any, as per Para 6.5.

**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 & 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 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 20 locations for installation of the CCTV Surveillance System are as under –

**SYSTEM LOCATION & CAMERA DETAILS**

Sl.No.	Location	Number of LPR 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	CYBER CRIME PS			4	4
5	CRIME & ECONOMIC OFFENCES PS			3	3
6	SPECIAL NARCOTIC PS			4	4
7	ALL WOMEN PS			4	4
8	TUIFAR POLICE CHECK-GATE		3		3
9	ZOKHAWTHAR CHECKGATE		4		4
10	KHANKAWN CHECKGATE	3	1		4
11	DUNGTLANG CHECKGATE		4		4
12	VAIRENGTE CHECKGATE	2	2		4
13	BAIRABI CHECKGATE		4		4
14	SAIPHAI CHECKGATE		3		3
15	PHAISEN CHECKGATE		4		4
16	SAILIAMKAWN CHECKGATE		4		4
17	KANHMUN CHECKGATE		3		3
18	NGOPA CHECKGATE		3		3
19	THINGSAI CHECKGATE		4		4
20	TUISENPхай CHECKGATE		3		3
<b>TOTAL</b>		<b>6</b>	<b>56</b>	<b>15</b>	<b>77</b>

**Summary :**

<b>Total Nos of locations</b>	<b>20</b>
<b>Total Nos of LPR cameras</b>	<b>6</b>
<b>Total Nos of IP cameras</b>	<b>56</b>
<b>Total Nos of IP cameras with built-in-mic</b>	<b>15</b>
<b>Total Nos of Recorder</b>	<b>20</b>
<b>Total Nos of Monitor</b>	<b>20</b>

## 8. BIDDERS QUALIFICATION CRITERIA:

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

- (1) The bidder should be Mizoram State registered firm under the Mizoram Societies Registration Act, 2005 (Act No. 13 of 2005) (Documentary proof in support of the same shall be enclosed).
- (2) The bidder must submit copy of Mizoram Goods & Service Tax Registration, HTPC.
- (3) 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.
- (4) The bidder firm must have Authorized Distributor/Dealership/ Partnership certificate from the company concerned.
- (5) 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.
- (6) 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).
- (7) The bidder must submit the clause by clause compliance statement of the tender.
- (8) 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).**
- (9) 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 EOI.
- (10) 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.
- (11) The bidder should submit 3 (three) Satisfaction of Customer letter for outdoor surveillance done by the registered firm.

- (12) The bidder firm must have 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.
- (13) 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.
- (14) The bidder must be a professional tax payer in Mizoram (proof to be enclosed).

***Note : The bidder must enclose the above supporting documents alongwith the Evaluation Format (See page no.25) 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 EOI. 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 EOI. SI must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this EOI 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 EOI.
  - SI is responsible for sizing and procuring the necessary hardware and software licenses as per the performance requirements provided in the EOI. 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 EOI 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	The bidder should be Mizoram State registered firm under the Mizoram Societies Registration Act, 2005 (Act No. 13 of 2005)	Certificates	
2	The bidder must submit copy of Mizoram Goods & Service Tax Registration, HTPC.	Certificates/ Connected Voucher	
3	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	
4	The bidder firm must have Authorized Distributor/Dealership/Partnership certificate from the company.	Certificates	
5	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	
6	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	
7	The bidder must submit the clause by clause compliance statement of the tender.	Compliance Statement	
8	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	
9	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 EOI.	Certificates	

10	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	
11	The bidder should submit 03 (three) Satisfaction of Customer letter for outdoor surveillance done by the registered firm.	Certificates	
12	The bidder firm must have a service team with service vehicle at Aizawl and Lunglei to be called for after sales service after completing the work.	Details	
13	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	
14	The bidder must be a professional tax payer in Mizoram	Certificates	

***Note : Only those bidders who have fulfilled the above 14 criteria satisfactorily will be declared qualified.***

## 11. TECHNICAL BID FORMAT

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

### 11.1. REGULAR IP CAMERA

Main Chipset	T31X
Image Sensor	1/2.8", 5MP progressive scan ultra-low illumination CMOS GC4653
Effective Pixels	5MP
Min. Illumination	Color: 0.1Lux@F1.2; B&W: 0Lux@F1.2 (IR on)
Lens	4mm
IR Distance	10-15M (18pcs IR lamps)
Noise Reduction	3D noise reduction
WDR	DWDR (off / low / medium / high)
Responding Speed	≤1s
Maximum Detection	5fps/s (color image)
Encoding Format	H.265/H.264
Coding Characteristics	Main stream: 2592*1904@20fps, 2560*1440@25fps, 2304*1296@25fps, 1920*1080@25fps Sub stream: D1(720*576), VGA(640*480), Q720P(640*360)
Video Bit Rate	Fixed bit rate, variable bit rate (1280kbps-4Mbps)
Network Protocol	TCP/IP, UDP, HTTP, DHCP, RTSP, NTP
Waterproof	IP66
Power Supply	DC12V / PoE
Operation	T/H -20°C~55°C/0%-90%
Power Consumption	<10W (MAX)

### 11.2. IP CAMERA WITH BUIL-IN-MIC

Main Chipset	T31X
Image Sensor	1/2.8", 5MP progressive scan ultra-low illumination CMOS GC4653
Effective Pixels	5MP
Min. Illumination	Color: 0.1Lux@F1.2; B&W: 0Lux@F1.2 (IR on)

Lens	4mm
IR Distance	10-15M (18pcs IR lamps)
Noise Reduction	3D noise reduction
WDR	DWDR (off / low / medium / high)
Responding Speed	≤1s
Maximum Detection	5fps/s (color image)
Encoding Format	H.265/H.264
Coding Characteristics	Main stream: 2592*1904@20fps, 2560*1440@25fps, 2304*1296@25fps, 1920*1080@25fps Sub stream: D1(720*576), VGA(640*480), Q720P(640*360)
Video Bit Rate	Fixed bit rate, variable bit rate (1280kbps-4Mbps)
Network Protocol	TCP/IP, UDP, HTTP, DHCP, RTSP, NTP
Audio	Built-in Mic
Audio Coding Standard	G.711U/64Kbps
Power Supply	DC12V / PoE
Operation	T/H -20°C~55°C/0%-90%
Power Consumption	<10W (MAX)

### 11.3. LICENSE PLATE RECOGNITION (LPR) CAMERA

Image sensor	Sony CMOS sensor
Resolution	1920*1080P
Video output	Network
Compression	H.265/H.264 high profile, M-JPEG
FPS	1920×1080/1-30fps, 1280*960/1-30fps, 1280*720/1-30fps
Compressed code	256K-12Mbps
Dual streaming / 3D DNR	Support
Network interface	RJ45 ethernet port,10/100M TCP/IP/UDP/RTSP   FTP/PPPOE/DHCP/DDNS/NTP/UPnP supported
LPR model	Vehicle speed adjustable, environment brightness adjustable
Day/night	Auto switching (IR model)

LED	White light array LED
Lens	16mm HD 2.0MP
Power supply	DC12V(±10%) /POE(IEEE802.3at)
Power dissipation	14W(LED and heater works)
Work temperature, humidity	-100C~550C,10%~90% RH
Temperature control	-50C heater(optional), 450C fan works

#### 11.4. 4 CHANNEL NETWORK VIDEO RECORDER (NVR)

IP Video Input	4ch
HDMI	Resolution:1920x1080/60Hz,1440x900/60Hz,1280x1024/60Hz,1280x720/60Hz,1024 x768/60Hz
VGA	Resolution: 1920x1080/60Hz1440x900/60Hz 1280x1024/60Hz 1280x720/60Hz 1024x768/60Hz
Compression	H.265+/H.265 /H.264+/H.264
Resolution	5MP /4MP / 3MP /1080P /720P /D1/CIF /QCIF
Decoding Capability	4CH@1080P(25fps)
Backup Mode	USB Device/Network
Smart Playback	Line Crossing/Are Intrusion/Motion Detection
Incoming Bandwidth	30Mbps
Outgoing Bandwidth	20Mbps
Ethernet	1 RJ-45 10 /100 Mbps self-adaptive Ethernet interface
Smart Phone	IOS(iPhone, iPad), Android(Phone, Pad)
SATA	1 SATA interface
Capacity	Up to 10 TB
USB Interface	Front panel: 1 x USB 2.0 / Rear panel 1 x USB 2.0
Power Supply	DC12V/1.5A
Power Consumption	≤ 10W(without HDD)
Working Environment	-10°C+55°C / 10%-90%RH
Dimension(WDHP)	250x230x45mm
Weight	≤ 1.5k

**11.5. 8 CHANNEL NETWORK VIDEO RECORDER (NVR)**

IP Video Input	8ch
HDMI	Resolution:1920x1080/60Hz,1440x900/60Hz,1280x1024/60Hz,1280x720/60Hz,1024 x768/60Hz
VGA	Resolution: 1920x1080/60Hz1440x900/60Hz 1280x1024/60Hz 1280x720/60Hz 1024x768/60Hz
Compression	H.265+/H.265 /H.264+/H.264
Resolution	5MP /4MP / 3MP /1080P /720P /D1/CIF /QCIF
Decoding Capability	8CH@1080P(25fps)
Backup Mode	USB Device/Network
Smart Playback	Line Crossing/Are Intrution/Motion Detection
Incoming Bandwidth	40Mbps
Outgoing Bandwidth	20Mbps
Ethernet	1 RJ-45 10 /100 Mbps self-adaptive Ethernet interface
Smart Phone	IOS(iPhone, iPad), Android(Phone, Pad)
SATA	1 SATA interface
Capacity	Up to 10 TB
USB Interface	Front panel: 1 x USB 2.0 / Rear panel 1 x USB 2.0
Power Supply	DC12V/1.5A
Power Consumption	≤ 10W(without HDD)
Working Environment	-10°C+55°C / 10%-90%RH
Dimension(WDHP)	250x230x45mm
Weight	≤ 1.5k

**11.6. 4 PORT POWER OVER ETHERNET (PoE)**

PoE Port	1 to 4 support IEEE802.3af/at (10/100M)
UP Link Port	2 Up Link port (10/100M)
Extend	Can be change to EXTEND, extend network cable up to 250m
PoE Output	15.4W/30W IEEE802.3af/at
PoE Pins	1/2+, 3/6 - 4/5+, 7/8 - total 8 pins
PoE Whole Power	<78W

PoE Connection	IEEE 802.3af/IEEE 8.2.3at
PoE Type	End-span
PoE Transmission Distance	<250m
Network Standard	IEEE 802.3, IEEE 802.3u, 802.3x, 802.3af/at
Network Medium	10/100BASE-TX: 5 class and above non shielded twisted pair
Network Signal Distance	<250m
Switch Capacity	1 Gbps
Forwarding Rate	10BASE - T: 14880PPS/Port/100BASE-tx:14800pps/port100Mbps:148800pps/port 1000Mbps:1488000pps/port
MAC Address	1K MAC address table
Working Temperature	-100C ~ 550C
Input Power	AC 100-240V 50/60HZ
Whole Power	Max 78W

#### 11.7. 8 PORT POWER OVER ETHERNET (PoE)

Power Adapter Voltage	AC 110V-240V
Consumption	150W
PoE Ethernet Port	1 ~ 8 Port : 10/100/1000Mbps
Ethernet port	Uplink Port : 10/100/1000Mbps
Transmission Distance	1 ~ 8 Port : 10/100/1000M: 0 ~ 100m Uplink Port : 0 ~ 100m
Transmission Medium	Cat5/5e/6 standard network cable
Network Standard	IEEE802.3/802.3u, IEEE802.3x,IEEE802.ab
Switching Capacity	20Gbps
Packet Buffer Memory	1Mbits
Throughput	14.88Mbit
MAC Table	2K
Data Package length	1518byte
Packet Forwarding Rate	10Mbps:14880pps/port 100Mbps:148800pps/port 1000Mbps:1488000pps/port
PoE Standard IEEE	802.3af/at



PoE Power Supply	1/2(+), 4/5(+), 3/6(-), 7/8(-)
PoE Power	af=15.4W at=30W
Working temperature	0 <sup>0</sup> ~ 55 <sup>0</sup> C
Relative Humidity	20~95%
Storage temperature	-20 <sup>0</sup> ~ 70 <sup>0</sup> C
MTBF	>30000h

#### 11.8. 4TB SURVEILLANCE HARD DISK DRIVE

Formatted capacity	4TB
Form factor	3.5-inch
Advanced Format(AF)	Yes
RoHS compliant <sup>6</sup>	Yes
Cameras supported	Upto64
Drive Bays Supported	8+
Firmware Feature Name	AllFrame4K
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

Formatted capacity	8TB
Form factor	3.5-inch
Advanced Format(AF)	Yes
RoHS compliant <sup>6</sup>	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 work load 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. LCD MONITOR

Display size	61.0cm (24 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

Capacity	1KVA/800V
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	<ul style="list-style-type: none"> <li>• &lt;2% THD (Linear Load)</li> <li>• 4% THD (N on-Linear Load)</li> </ul>
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

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

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

**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
<b>CCTV EQUIPMENT</b>				
Regular IP Camera	56	Nos		
IP Camera with Build-In-Mic	15	Nos		
LPR Camera	6	Nos		
4 Channel NVR	18	Nos		
8 Channel NVR	2	Nos		
4 Port PoE	18	Nos		
8 Port PoE	2	Nos		
4TB HDD	18	Nos		
8TB HDD	2	Nos		
<b>POWER BACKUP</b>				
Uninterruptible Power Supply	20	Nos		
<b>ACCESSORIES</b>				
2U NVR Rack	20	Nos		
CAT 6 Cable	10000	Mtr		
RJ 47 connector	200	Nos		
Round Clip	10000	Nos		
Power Strip	20	Nos		
Electrical Conduit	20	Nos		
<b>INSTALLATION &amp; COMMISSIONING CHARGES</b>				
Supply, Installation, Integration, Project Management Charges				
<b>AMC CHARGES</b>				
AMC Charges for 24 Months				
<b>TOTAL (Supply + Installation + Service)</b>				

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

For Quality cum Cost Based Evaluation (QCBS), the following formula will be used for evaluation of the Bids. The total amount of price for the whole project quoted by the bidder will be taken into consideration for evaluation of each bid.

The Scores will be calculated as:

$$B_n = 0.60 * T_n + 0.40 * (C_{min} / C_b) * 100$$

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.

**13. BANK GUARANTEE PROFORMA FOR FURNISHING EMD**

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 at .....are 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.