



## OFFICE OF THE CHIEF EXECUTIVE OFFICER

Siliguri Jalpaiguri Development Authority (SJDA)

**AN IS/ISO 9001:2008 CERTIFIED ORGANISATION**

Tenzing Norgey Road, Pradhan Nagar, Siliguri, Dist: Darjeeling, Pin – 734 003

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(QSF: ENGG 03 / 01)

Memo No.: 732 /X/ ENGG /ELECT/46/17/ 2018 of SJDA

Dated: 18 .07.2018

### NOTICE INVITING ONLINE EOI (e - QUOTATION) NO. 005 / ENGG / ELECT / 2018 – 2019 OF SJDA

**PREPARATION OF DETAILED PROJECT REPORT FOR DESIGN, SUPPLY, INSTALLATION, COMMISSIONING & INTEGRATION OF SURVEILLANCE SYSTEM FOR AREAS UNDER SILIGURI METROPOLITAN POLICE JURISTDICTION ON A TURNKEY BASIS. AT SILIGURI, WEST BENGAL.**

An Expression of Interest (EOI) is hereby invited by Siliguri Jalpaiguri Development Authority (SJDA) from the registered, bonafide, reliable and resourceful Manufacturers / Agencies / System Integration Firms having experience of not less than five years in Design, Supply, Installation, Commissioning, Integration and Maintenance of Surveillance System for areas under Siliguri Metropolitan Police jurisdiction on a turnkey basis.

#### **About the Project:**

The system architecture is defined in such a manner that the VMS shall be open to any IP and Analog cameras integration. As a result, existing resources in the police Commissionerate can be reused optimally and augmented in the new system. The systems architecture is scalable enough to extend it to future Safe City Project mission and should have enough customization capability as per the local user requirements.

The system is not dependent on any vendor specific particular operating system. The system is capable of operating with heterogeneous OS environment so that police department can choose any OS they want for future expansion. The system will run alike under Windows, Linux and UNIX. It should support all standard browsers – Internet Explorer, Firefox, Safari, Chrome, etc.

The system will not be dependent on any proprietary NVR or camera model. Any ONVIF compliant camera from any vendor should work. Also non-ONVIF compliant cameras can be integrated with the system with the available camera SDK.

No vendor specific NVR will be used in the system to ensure openness and scalability in terms of computing power, storage capability, retention of data and further extension of the project. General purpose server (of the self and vendor independent) will be used in the system.

No proprietary integrated and limited amount of storage will be used. However, the system will be capable of augmenting with unlimited storage capacity in future without requiring changing the systems architecture or the software. This can be accomplished at ease with simple software reconfiguration without losing any data recorded till the time the reconfiguration is done.

The proposed network architecture supports either wired or wireless communication backbone. Hence it is not limited to wired communication only and wireless network can be used for each of installation, maintenance and to avoid disconnection due to man-made or natural calamities as much as possible.



## Utility of the System:

The system will be used for surveillance of selected intersections and locations suggested by the officials of the concerned Police Jurisdiction. The surveillance system will have Detection and Identification capability. The system can be broadly categorized in two-prong approach.

### A) General Law and Order Management and Crime Prevention

- General Surveillance of the surrounding areas with high quality video so that identification of vehicles and persons can be made and immediate action can be taken.
- Instant manual trigger facility in the system to send alerts to concerned personnel in real-time via sms, email, etc. when some incidence is observed by operators in the Central Control Room remotely.
- Identification of Person's face or any object within a predefined range for subsequent photo matching with criminal face database, once photo-matching software is procured in future.
- Can be extended in future to scale it from face identification to a "Face Recognition" system to match images with Criminal database. The system will be ready to deploy this facility without requiring change in the communication infrastructure.
- Automatic alert generation when a crowd is formed in an otherwise normal activity area.
- To make the communication backbone and infrastructure ready so that the system can be upgraded to future smart city surveillance system in phased manner.
- Integration and data exchange with other cities as and when needed.
- In addition, the designed system and related software is integrated with Smart investigation tools for post facto analysis of incidents.

### B) Efficient Management of Traffic and related traffic Violation Prevention

- Not only identification of the number plates of vehicles, the system is ready with software and systems architecture requirement for Automatic recognition of Number Plates of vehicles (for all types of vehicles including two-wheelers) within a predefined range and facilitate efficient traffic management.
- The system is capable to input certain license plates according to category like
  - a. "Wanted vehicles",
  - b. "Suspicious vehicles",
  - c. "Stolen vehicles", and
  - d. "Expired Vehicles"

The ANPR application will automatically generate Alerts at the Central Control Room when any such vehicle is identified at in Camera FOV.

- Currently, the automatic number plate recognition (ANPR) system will be used in select intersections on a few cameras, and it can be extended to all the intersections with simple extra software license and addition of required number of servers.
- The system can be scaled in future for ITMS (Intelligent Traffic Management System) as well as Advanced Traffic Control System (ATCS) project for efficient traffic management.
- The proposed system is scalable and upgradable to an automated Red Light Violation Detection system using the same installed cameras at the traffic intersection and automatic generation of e-challan in prescribed form by the concerned police department either in English or Hindi.
- In addition, the e-challan can accommodate manual identification of motorcyclists without helmet from the evidence video and snaps attached with the e-challan.
- The system will be used to search vehicles with a given number plate to track movement of vehicles.
- Automatic recognition of hot-listed, license expired, or wanted vehicle to facilitate criminal investigation.
- This will help in reduce traffic related crime in each jurisdiction.



## SCOPE OF WORKS

The scope of work includes supply, installation of high definition IP cameras at specified outdoor locations for Siliguri Metropolitan Police Jurisdiction along with necessary components (Servers, Storage, Workstations, Networking system, etc.) to make a complete functional IP based intelligent CCTV system on turnkey basis and maintenance of the system for 5 years including warranty period of 3 years.

**Purpose of the system is as follows:**

- The system will be used for surveillance of selected intersections and locations suggested by the officials of the concerned Police Jurisdiction.
- Detection of an event and identification of a person's face, object features within a predefined range.
- Automatic recognition of Number Plates of vehicles (for all types of vehicles including two-wheelers) within a pre-defined range and facilitate efficient traffic management.
- The system will be used to search vehicles with a given number plate to track movement of vehicles.
- Automatic recognition of hot-listed, license expired, or wanted vehicle to facilitate criminal investigation.
- Automatic alert generation when a crowd is formed in an otherwise normal activity area.
- Smart investigation for post facto analysis of incidents.
- To make the communication backbone and infrastructure ready so that the system can be upgraded to future smart city surveillance system in phased manner.
- Integration and data exchange with other cities as and when needed.
- The system should be scalable and upgradable to a Red Light Violation Detection system using the installed cameras at the traffic intersection and automatic generation of e-challan in prescribed form by the concerned police department either in English, Hindi & Bangla (as the case may be).

Feed from all cameras to be transmitted to respective Central Control Room for viewing and for online storage. The System is architected to augment a Sub-control room if required.

The system shall provide for online storage of video images for minimum 60 days. The system should be able to use server installed HDD as well as NAS/SAN in the same system for recording purposes, scalable in future as and when required.

The warranty of the whole system shall be for a period of 3 years from the date of commissioning and successful handing over (Acceptance) with associated works as described and set forth in the tender document. Comprehensive maintenance of the system for another 2 years post warranty period is included in the scope of the project.

The system shall adhere to open standards and all the software shall run in standard Operating system including Open source Linux OS, providing maximum flexibility and low cost of ownership, scalable to meet future surveillance and intelligent traffic monitoring needs, and ease of use.

The bid should be inclusive of all accessories, brackets, and camera poles, various types of cables, conduits, ducts etc. and maintenance for the entire period of 5 years including 3 years of warranty period.

The respective City Police Commissionerate will arrange/apply for availability of AC power source at a single point at each intersection.

Specification laid down in the tender document is only indicative and not exhaustive.

Bidders may quote for additional items to implement the system completely if needed.

Scope shall not be restricted to the items listed in the schedule or requirement and specifications only. All the items, component and equipment that are needed to make the complete system functional and secure shall be included in the BOM uploaded by the Bidder.



network (wired/wireless or hybrid) to be provided shall be secure and the bidder must ensure that sufficient bandwidth is available at all times to transmit video from all cameras to the Central Control Room. Necessary software/hardware components need to be provided by the bidder to ensure security of data throughout the lifetime of the system.

The bidder shall guarantee system uptime as per the SLA. Failure to do so shall result in penalty, which is laid down in Service Level Agreement. The software to record and generate periodic reports/Reports-on-demand of the system health is to be delivered by the bidder along with the system.

The system offered by the bidder shall have no single point of failure.

Any technical deviation and proposal from bidder's side should be clearly mentioned.

The following activities comprise the total scope of work:

- To establish backbone network to provide high-speed connectivity to all the locations where video surveillance camera would be installed.
- Configuration and Integration of equipment.
- Installation and Configuration of IP based Surveillance Solution with Automatic Number Plate Recognition (ANPR).
- Seamless integration of IP Backbone with Surveillance Application consisting of IP Based Surveillance Cameras and Intelligent Monitoring and Recording Software.
- Supply and installation of Video Management System and ANPR System.
- Seamless integration of ANPR system with Video Management System.
- To provide an open standard framework to integrate the System with other systems (Dial 100, Command and Control Center, Motor Vehicles database, etc.) for exchange of information for future scalability. Provide vandal resistant housing for the IP Cameras and other equipment to be housed in every identified place given in the location list later in this document.
- Setting up Control room with display screens at locations specified by the Police Organization for real time monitoring of Video feed, and smart navigation events from the archived video for investigation.
- Video recording shall be retained for 14 days for future reference and use.
- Training on overall system.
- Acceptance Test.
- Sign-Off with Documentation.
- Maintenance and support of IP Video Surveillance System & Other Components highlighted above to meet purpose of the system for 5 years.

#### **Future Scalability of the proposed system:**

- To provide an open standard framework to upgrade it to future Smart City Project without changing the existing infrastructure and reusability of the system.
- To provide an open standard framework to integrate the System with other systems (Dial 100, Command and Control Center, Motor Vehicles database, etc. for exchange of information for future scalability.
- Augment to "Emergency Response System" and GIS based Command and Control Center expansion.
- Integration of IP-enabled mobile vans into the Networked Video Management System

#### **ELEGIBITY TO PARTICIPATE:**

*Registered, bonafide, reliable and resourceful Architects / Agencies / Consultancy Firms* having not less than five years of experience in designing similar type of projects may participate in this Expression of Interest (EOI). The Multi-Disciplinary Firms / Agencies / Consultancy Firms, who have executed similar projects, may also submit their proposals. All of them should also have experience in planning, designing and execution of at least one project of similar nature costing **Rs. 4.00 (Four) Crores** or above during the **last three Financial Years** ending 2017-18.



ast one hard copy of the *Technical Bid of the Proposed Solution* in a book format would have to be submitted during presentation with concept drawing in A2 size format.

Any participant bidder not following the steps in submitting their bid /offer as described are liable to be disqualified.

#### TERMS & CONDITIONS:

- (1) Before submitting any bid offer, the intending participants should make themselves acquainted, thoroughly, with the local conditions prevailing by actual inspection of the site and take into considerations all aspects including actual size and availability of land, communication facilities, climate conditions etc. As no claim whatsoever will be entertained on these accounts, afterwards.
- (2) All related expenditure incurred by the bidders for preparation, submission, clarification, presentation etc. shall not be borne by SJDA.
- (3) As per the evaluation criteria specified above, selected successful bidder maybe called for negotiations for improvement of Terms of Reference and scope of work and financial terms. SJDA reserves the right to negotiate with the successful bidder.
- (4) The selected bidder will have to enter into an agreement of contract with SJDA within 10 (ten) days of issuance of the LOI.
- (5) The detailed drawings and site survey reports would have to be submitted by the Manufacturer / Agency / System Integrator within 10 days from the date of issue of LOI.
- (6) Download and Bid Submission / Upload Start Date & Time - 20-07-2018 from 16.00 hrs.
- (7) Intending participants may attend the pre-bid meeting on 31-07-2018 at 12.00 hrs. in the Conference Hall of SJDA, Tenzing Norgey Road, Central Bus Terminus, Pradhan Nagar, Siliguri-734003.
- (8) Download and Bid Submission / Upload End Date & Time - 14-08-2018 up to 18.00 hrs.
- (9) Date of opening of Technical Proposals - 17-08-2018 at 11.00 hrs.
- (10) Date of opening of Financial Proposals will be declared after technical evaluation.
- (11) No conditional bid/offer shall be accepted.
- (12) The Bidders shall have to show original copies of the submitted documents at the time of evaluation of the bids.
- (13). The Bidders or their authorized representatives may remain present at the time of opening of bids. The schedule of opening may be altered depending on unavoidable circumstances.
- (14) Bidder shall not be in a conflict of interest with one or more parties in the bidding process.
- (15) In the event of e-Filing intending bidder may download the quotation documents from the website <https://wbtenders.gov.in> directly by the help of his Digital Signature Certificate (DSC).
- (16) In case of online submission, Technical Bid and Financial Bid both will be submitted concurrently duly digitally signed in the Website <https://wbtenders.gov.in> Quotation documents may be downloaded from website & submission of Technical Bid / Financial Bid as per the Date / Time Schedule stated in this NIQ. The documents submitted by the bidders should be properly indexed & attested with seal.
- (17) Any corrigendum, addendum, modification, extension, change etc. in the EOI/Bid including dates, venue, conditions, minutes of meeting etc. will be uploaded in the SJDA website ([www.sjda.org](http://www.sjda.org)) which will be treated as public announcement / communication required for the EOI/ Bid and EOI/Bid will be treated as revised accordingly. Bidders are advised to follow SJDA website ([www.sjda.org](http://www.sjda.org)) regularly related to the captioned project for all public announcements / communications.
- (18) Contact Address: Siliguri Jalpaiguri Development Authority, Tenzing Norgey Road, Central Bus Terminus, Pradhan Nagar, Siliguri-734003, Telephone Nos. 0353-2515647 / 2512922, Fax-2510056 during office hours.



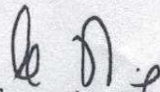
<b><u>PROPOSED LOCATIONS OF CCTV CAMERAS:</u></b>	<b><u>Name OF Traffic Guard, SPC</u></b>
Court More	Panitanki Traffic Guard
Hati More	Panitanki Traffic Guard
Ashigarh More	Bhaktinagar Traffic Guard
Gora More	NJP Traffic Guard
Fulbari By-pass More (NJP)	Jalpai More Traffic Guard
ICP Fulbari (P2P)	Jalpai More Traffic Guard
Murder More	Jalpai More Traffic Guard
Uttar Kanya More	Jalpai More Traffic Guard
Tinbati More	Jalpai More Traffic Guard
Netaji More	NJP Traffic Guard
Gopal More	NJP Traffic Guard
Nowkaghat More	Jalpai More Traffic Guard
Kawakhali More	Bagdogra Traffic Guard
Chathat More	Bagdogra Traffic Guard
Medical More	Bagdogra Traffic Guard
City Centre x - in	Bagdogra Traffic Guard
City Centre Out Gate	Bagdogra Traffic Guard
Matigara Bypass More	Bagdogra Traffic Guard
Paribahan Nagar More	Bagdogra Traffic Guard
Khaprail More	Bagdogra Traffic Guard
Shiv Mandir More	Bagdogra Traffic Guard
Airport Approach More	Bagdogra Traffic Guard
Panighata More	Bagdogra Traffic Guard
Salbari Bazar	Junction Traffic Guard
Salugara Bazar	Bhaktinagar Traffic Guard
Pintel Village More	Junction Traffic Guard
TCP More, Khaprail	Bagdogra Traffic Guard
Sahid Nagar more	Bhaktinagar Traffic Guard

<b><u>Proposed Locations of ANPR Cameras</u></b>	<b><u>Name of Traffic Guard, SPC</u></b>
Bhaktinagar Checkpost	Bhaktinagar Traffic Guard
Bihar More	Bagdogra traffic Guard
Fulbari Toll	Jalpai More Traffic Guard
Fulbari Bazar	Jalpai More Traffic Guard
Bhabesh More	NJP Traffic Guard
Methibari, SIT More	Junction Traffic Guard



Copy to the: With request to display in their Notice Board.

1. Commissioner of Police, Siliguri Police Commissionerate, Mallguri, P.O., Pradhan Nagar, Siliguri Pin 734003.
2. Dy. Commissioner of Police (Traffic), Siliguri Police Commissionerate, Mallguri, P.O., Pradhan Nagar, Siliguri Pin 734003.
3. Addl. Executive Officer, Siliguri Mahakuma Parishad.
4. Commissioner, Siliguri Municipal Corporation.
5. District Magistrate, Darjeeling.
6. District Magistrate, Jalpaiguri.
7. Chairman, Jalpaiguri Municipality, Jalpaiguri.
8. Secretary, Jalpaiguri Jilla Parishad, Jalpaiguri.
9. Superintendent of Police, Darjeeling.
10. Superintendent of Police, Jalpaiguri.
11. Superintending Engineer, PW (Roads), SHC-IV, Shaktigarh, Siliguri.
12. Superintending Engineer, Northern Circle, PWD, Jalpaiguri.
13. Executive Engineer, North Bengal Development Department, H. C. Road, Siliguri.
14. Executive Engineer, North Bengal Construction Division, PWD, Siliguri.
15. Executive Engineer, Construction Board, North Bengal Division, PWD (TE), Shaktigarh, Siliguri.
16. Executive Engineer, Darjeeling Division, PWD.
17. A. P., Siliguri Jalpaiguri Development Authority, Siliguri for uploading in SJDA website.
18. D.I.O., NIC, Siliguri for uploading in official website
19. Notice Board, Siliguri Jalpaiguri Development Authority, Siliguri.
20. Notice Board, Siliguri Jalpaiguri Development Authority, DCRPD Building, Near Sadar Hospital, Jalpaiguri.

  
**Chief Executive Officer**  
Siliguri Jalpaiguri Development Authority

*Mr. K. S. Saha*  
*P. S. Saha*  
*3*  
*18/7/18*