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NOTICE INVITING ONLINE EOI (e - QUOTATION) NO. 005 / ENGG / ELECT / 2018 – 2019 OF SJDA (2ND CALL)

PREPARATION OF DETAILED PROJECT REPORT FOR DESIGN, SUPPLY, INSTALLATION, COMMISSIONING & INTEGRATION OF SURVEILLANCE SYSTEM FOR AREAS UNDER SILIGURI METROPOLITAN POLICE JURISDICTION 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.