



**Intelligent  
e-Challan  
Management  
Software**

Adding sense to surveillance.

## Intelligent e-Challan Management Software

Videonetics "Intelligent e-Challan Management Software" (ICMS) is open architecture software that integrates with Intelligent Traffic Management System applications suite offering efficient management of e-challans generated to penalise traffic violations like red light violation, stop line violation, speed violation, etc. Additionally, it allows the operator to include other violations such as no helmet, triple riding, etc. as and when visually detected during the validation of challans.



### HIGHLIGHTS

- National Vehicle Database (NIC VAHAN) Integration
- Ready APIs for integration with regional and international vehicle database
- Automated, Semi-Automated & Spot mode of operation
- Secure Web Access
- Mobile User Authentication & Mobile Device Authorization
- Challan Traceability
- Detailed MIS reports & statistics
- Multiple challan printing options

## Unified Systems Architecture

Figure 1 shows overall systems architecture explaining the working of software. This shows the unified system can take input from field handheld devices, Intelligent Traffic Management systems, as well as manual input from other surveillance systems to generate and manage challans.

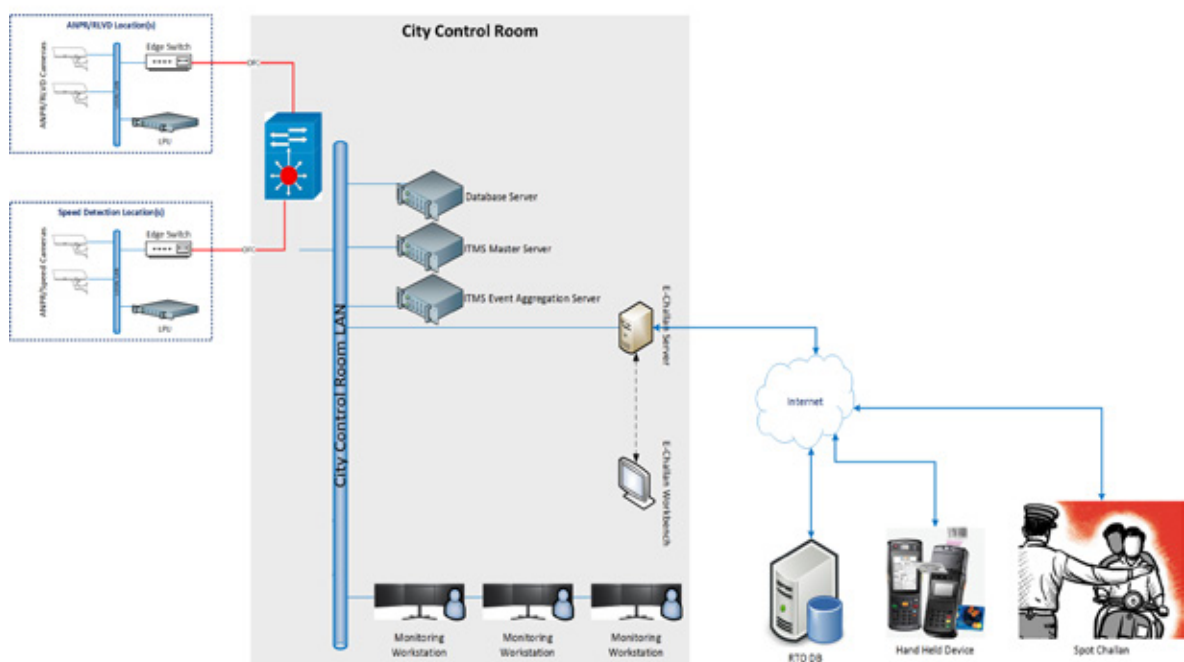


Figure 1: Unified Systems Architecture for use of intelligent e-Challan Management Software

## Features of ICMS

### Ease of Operation

- Intuitive UI for ease of operation.
- Central Web based interface for administration, user management, challan management and payment status management

### Ease of Installation

- Web based central application which can be easily installed in any web servers
- Android based mobile App which can be installed in any compatible mobile device - smart phone, hand-held device.

### Vehicle Database Integration

- Integrated with NIC VAHAN Database, this facilitates the fetching of vehicle owner's details and vehicle details from RTO databases.
- Web API based framework available to integrate with local, regional and international vehicle databases.

### Scalability

- Web-service based architecture to support receipt of data from different system.
- Client-Server based architecture is useful for parallel operation of multiple field devices.
- The central software for challan management is horizontally scalable with IT infrastructure

### Security / Cyber -Security

- All the communication to and from the server is fully secured and protected to eliminate possibility of eavesdropping.

### User Management

- Pre-defined user roles like Challan Admin, Challan Supervisor and Challan Operator available
- Custom user roles of any number can be added by Challan Admin
- Role based device user authentication

### Challan Management

- Each challan is identified by unique identifier assigned to it when challan is generated.
- More than billion challans can be uniquely identified and searched.
- Authorized user can search history of offences - device wise, location-wise, offender-wise, device-user wise, generation type wise.

### Challan Traceability

- Each challan is identified by unique identifier for future references.
- Challan tagged to issuing officer's details
- Challan with accurate time stamp
- Challan generated using handheld device can be tagged with GPS location to accurately trace the location of offence.

## RLVD SYSTEM



थाना यातायात  
एम टी एच कम्पाउण्ड  
इन्दौर (म.प्र.)  
फोन : 0731-2542572

### नोटिस

सर / मेडम,

Video Analytic System से यातायात पुलिस इन्दौर ने पहचान की है कि आप / ड्रायवर द्वारा वाहन नम्बर MP09NJ0640 को चलाते हुये, निम्न स्थान / दिनांक / समय पर यातायात के नियमो का उल्लंघन किया गया है जो निम्न प्रकार से मोटर यान अधिनियम 1988 के अन्तर्गत दण्डनीय अपराध है।

Challan Number	Vehicle Number	Vehicle Class	Date & Time of Detection	Date & Time of Generation
RLVD_Mahe_598 938	MP09XXXX	MCY	7-6-2017 18:37:18	7-7-2017 11:9:26



### नियमो का उल्लंघन :-

- |                                     |                          |              |                     |
|-------------------------------------|--------------------------|--------------|---------------------|
| <input checked="" type="checkbox"/> | 1. संकेत का उल्लंघन      | धारा 119/177 | शमन शुल्क 500 रुपये |
| <input checked="" type="checkbox"/> | 2. हेलमेट धारण नहीं करना | धारा 129/177 | शमन शुल्क 250 रुपये |
| <input type="checkbox"/>            | 3. तीन सवारी             | धारा 128/177 | शमन शुल्क 500 रुपये |
| <input type="checkbox"/>            | 4. गलत नम्बर प्लेट       | धारा 51/177  | शमन शुल्क 500 रुपये |

इस हेतु आप शमन शुल्क 750 रुपये थाना यातायात एम टी एच कम्पाउण्ड इन्दौर में, प्राप्ती दिनांक से 7 दिवस के अन्दर जमा कराकर, रसीद प्राप्त करें, अन्यथा आप के विरुद्ध अग्रिम वैधानिक कार्यवाही की जावेगी।

प्रति, ABCD GUPTA S/O-XTZ XXXXX
मो : 1234567890

थाना प्रमारी  
थाना यातायात इन्दौर

थाना :

क्षेत्र :

चालान भरने का समय:

प्रातः 10.30 - सांय 07.00

Lunch Time : 02.00 - 3.00

रविवार अवकाश

### Digital Signature

- Challans are signed digitally by Digital Signature of the responsible authority.

### Detailed MIS Reports

- Detailed MIS reports available from central location.
- Standard reports based on type of offence, location, officer, offender readily available.

### Pictorial Evidence

- Each challan is embedded with event images as evidence of the offence in central mode of operation.

### Manual Challan Generation

- Upload images and text to generate challans in semi-automated mode.
- Web based data entry for manual challan generation.
- Control room officers can generate e-Challans for the violations observed in Videonetics IVMS footage. Event image and video clip from Videonetics IVMS is used as evidence.

## Additional Features in Spot operation using hand-held devices

- **Device Management**
  - Device is pre-registered and managed centrally
- **Security**
  - OTP (one-time password) based user authentication
- **Device Hot listing**
  - Hot listing and black listing of devices by IMEI from central location by authorized personnel
- **Spot Challan**
  - Spot challan is generated by traffic officer at point of violation
- **Offence History**
  - For an offender, detailed history of previous offences displayed if any
- **Frequent Offence Detection**
  - Displays frequent offence types in hand-held devices
- **Contextual Help**
  - Full context based help is available to the officer for easy operation of the software
- **Offline Operation**
  - Offline session per user is maintained in the handheld device. Once authenticated the user can continue to work even if the connectivity is lost.

## System Requirements

Server Specifications	Workstation Specifications	Server(OS shall be server grade)	Workstation
Intel Xeon Quad Core Processor, 16 GB RAM, 1 TB HDD, 4 x 1 Gbps NIC	4 Core, 2.8 GHz, 16GB RAM, Intel® Iris™ Pro Graphics 580, Intel Quick Sync video (preferable)	MS Windows: Windows 64-bit Server OS Linux: Ubuntu 64 bit 14.04 LTS	MS Windows: Windows 7 onwards 64-bit OS

## Ordering Information

Product Code	License Description
ITMS-ECH-INT	ICMS software license <sup>1</sup>
ITMS-RDB-INT	License to integrate ITMS with RTO DB.
ITMS-CLA	ITMS client license to view live & archived video, events, generate MIS reports.
ITMS-ECH-CLA	ITMS e-Challan client license for Event Validation, Challan generation, printing etc.

<sup>1</sup> ICMS software integrates with existing ITMS suite of applications like central server application, ANPR, RLVD, Speed Detection to operate in central automated mode to generate e-Challans. Central semi-automated mode of operation requires ITMS central server application to generate e-Challans.

## VIDEONETICS – A FAST-GROWING INDIAN PIONEER

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- Safe City Surveillance projects in MP (11 Cities), Bidhan Nagar, Bangalore, Howrah, Alipore, Allahabad & many more

Videonetics adds sense to surveillance, to keep you safe.



A holistic portfolio of industry leading products

For enquiries, please contact:  
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