



## Integrated e-Challan/ e-Ticket Management Software





## INTEGRATED E-CHALLAN/ E-TICKET MANAGEMENT SOFTWARE

Videonetics Integrated e-Challan/ e-Ticket Management Software (ICMS) is an open architecture software that integrates with the Intelligent ITMS application suite. It enables efficient management of e-challans/ e-tickets generated to penalise traffic violations like red light/ stop line jumping, overspeeding, driving without seat belt/ helmet, use of cell phone while driving, triple riding etc. Additionally, it allows the operator to include other violations such as having a broken or non-standard number plate, as and when visually detected during the validation of challans/ tickets. ICMS also integrates with handheld terminal/ PDA for spot challan generation.

### Highlights

- National vehicle database (NIC VAHAN) integration
- Ready APIs for integration with regional and international vehicle database
- Automated, semi-automated and spot mode of operation
- Secure web access
- Mobile user authentication and mobile device authorisation for HHT/ PDA
- Challan/ ticket traceability
- Detailed MIS reports and statistics
- Multiple challan/ ticket printing options
- Integrated with payment collection system and third party web portals

The screenshot displays the 'Integrated E-Challan Management Software' interface. At the top, there are navigation tabs for Home, Evidence, Challan Details, and Profile. The main area features a search criteria section with date range filters (May 08, 2018 12:00:00 AM to May 08, 2018 11:59:59 PM), dropdown menus for Violation Type, Challan Status, and Data Source, and input fields for Vehicle Number and Operational Zone / Traffic Post. Below the search fields are 'Search' and 'Export' buttons. A summary bar shows 3 Total Challan, 0 Total Paid Challan, and 3 Total Unpaid Challan. The main data table lists three records for Red Light Violation Detection, including details on terminal, challan number, vehicle, operator, generated time, status, fine amount, and data source.

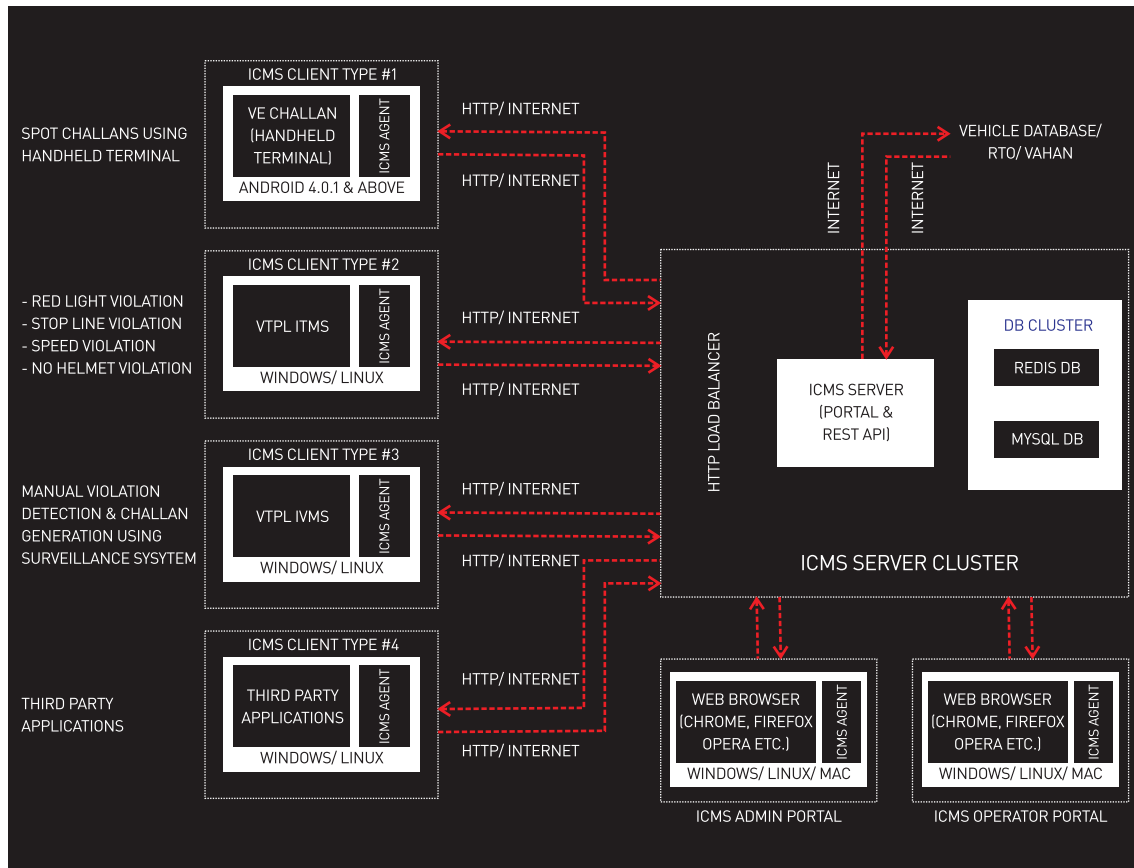
Violation	Terminal	Challan #	Vehicle #	Operational Zone	Vehicle Owner	Generated Time	Operator	Status	Fine Amount	Paid Amount	Data Source	Actions
Red Light Violation Detection	ITHS_BHOPAL	ICHSHP04H B91008Play 201809226 AH	AB01CD2345	BoardOffice2	XOXO SHARMA	May 8, 2018 9:02:26 AM	BHOPAL SMART CITY (bhopalITMS)	Unpaid	500	0	ITHS Terminal	View, Edit, Print, Delete
Red Light Violation Detection	ITHS_BHOPAL	ICHSHP04CL 592208Play2 0180554AA H	XY01ZZ2345	BoardOffice2	ABCD SRIVASTAVA	May 8, 2018 8:56:44 AM	BHOPAL SMART CITY (bhopalITMS)	Unpaid	500	0	ITHS Terminal	View, Edit, Print, Delete
Red Light Violation Detection	ITHS_BHOPAL	ICHSHP04A H518408Ha y201808555 SAH	AB01ZZ2345	BoardOffice2	XYZ SINGH	May 8, 2018 8:55:55 AM	BHOPAL SMART CITY (bhopalITMS)	Unpaid	500	0	ITHS Terminal	View, Edit, Print, Delete

Different challan/ ticket search criteria



## Unified Systems Architecture

The figure below shows overall systems architecture explaining the working of the software. It shows how the unified system takes inputs from handheld devices in the field, Intelligent Traffic Management System, as well as manual inputs from other surveillance systems to generate and manage challans.



### ■ Features

- Ease of operation
  - Intuitive UI for ease of operation
  - Central web-based interface for administration, user management, challan/ ticket management and payment status management
- Ease of installation
  - Web-based central application which can be easily installed in any web server
  - Android-based mobile app which can be installed in any compatible mobile device – smart phone, handheld device/ PDA
- Vehicle database integration
  - Integrated with NIC VAHAN database
  - 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 architecture is useful for parallel operation of multiple field devices
  - Central software for challan/ ticket management is 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 admin, supervisor and operator available
  - Role-based device user authentication
- Challan/ ticket management
  - Each challan/ ticket is identified by unique identifier assigned to it when challan/ ticket is generated
  - Very large number of challans/ tickets can be uniquely identified and searched
  - Authorised users can search the history of offences – by device, location, offender, device user, generation type
- Challan/ ticket traceability
  - Each challan/ ticket is identified by unique identifier for future references
  - Challan/ ticket tagged to issuing officer's details
  - Challan/ ticket with accurate time stamp
  - Challan/ ticket generated using handheld device can be tagged with GPS location to accurately trace the location of offence

**ITMS SYSTEM**

ध्यान यथावत्  
जहंगीरखद  
फोनन - 462008 (म.प.)  
फोन : 2443850, 267734

**नोटिस**

सर / मैम,

Video Analytic System से यादवत पुलिस जहंगीरखद ने पहचान की है कि आप / कुरखर द्वारा वाहन नम्बर AB01CD2345 को चलोडूने, निम्न स्थान / सिगनल / समय पर यादवत के नियमों का उल्लंघन किया गया है जो निम्न प्रकार से मोडर यान अधिनियम 1960 के अन्तर्गत सजायित करता है।

Challan Number	Vehicle Number	Vehicle Class	Date & Time of Detection	Date & Time of Generation
ICMSMP04AM51 84088May20180855 55AM	AB01CD2345	MCY	May 08, 2018 07:12:02 AM	May 08, 2018 08:55:55 AM

**नियमों का उल्लंघन :-**

<input checked="" type="checkbox"/> 1. सवैत का उल्लंघन	धारा 119/177	शरन शुल्क 500 रुपये
<input type="checkbox"/> 2. हेल्मेट धारण नही करना	धारा 129/177	शरन शुल्क 250 रुपये
<input type="checkbox"/> 3. रस्टोड लखन का उल्लंघन	धारा 113(1)/177	शरन शुल्क 100 रुपये
<input type="checkbox"/> 4. अत्यधिक गति में चलन चलन धारा 112-183		शरन शुल्क 1000 रुपये

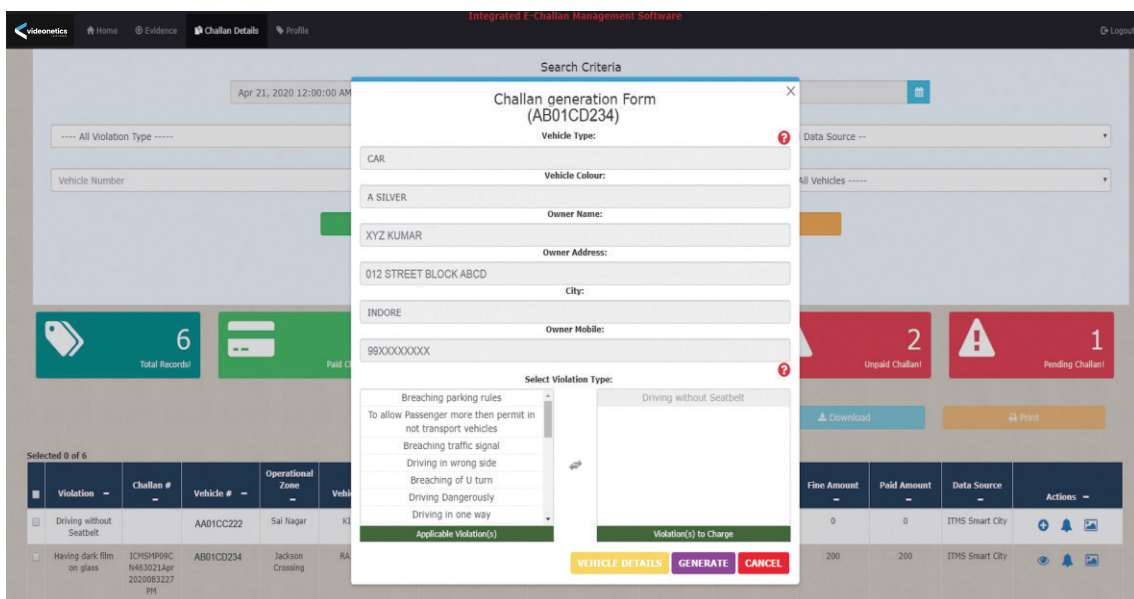
इस हेतु आप शरन शुल्क 500 रुपये धरन यादवत जहंगीरखद पोस्ट में, पारसी सिगनल से 15 मिनट के अन्दर जम करारकर, रस्टोड पत्रा करे, अन्यथा आप के विरुद्ध अधिनियम धाराओं का कार्रवाई की जायेगी।

पत्नी,  
XYZ KUMAR SINGH  
0123, ABCD LANE  
EFG STREET  
मो : 99XXXXXXX

धरन परसरी  
धरन यादवत जहंगीरखद

धरन :  
सेवर :  
यादवत भरने का समय:  
पत्रा : 10.30 - सवैत 07.00  
Lunch Time : 02.00 - 3.00  
रस्टोड अरकाल

- Digital signature
  - Challans/ tickets are signed digitally by the responsible authority
- Detailed MIS reports
  - Detailed MIS reports available from central location
  - Standard reports readily available based on type of offence, location, officer, offender



- Pictorial evidence
  - Each challan/ ticket is embedded with event images as evidence of the offence in central mode of operation
- Manual challan/ ticket generation
  - Upload images and text to generate challans/ tickets in semi-automated mode

- Web-based data entry for manual challan/ ticket generation
- Control room officers can generate e-challans/ e-tickets 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 handheld 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 authorised personnel
- Spot challan/ ticket
  - Spot challan/ ticket is generated by traffic officer at point of violation

- Offence history
  - For an offender, display of detailed history of previous offences, if any
- Frequent offence detection
  - Displays frequent offence types in handheld 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 connectivity is lost





Making the world  
a safer, smarter, happier place.

Videonetics's Unified Video Computing Platform™ helps you make sense of surveillance, by providing you with an end-to-end solution for a wide range of applications. The platform is powered by our Artificial Intelligence and Deep Learning engine, which is trained on humongous data sets, making our solutions incredibly robust and smart. All our products and solutions are integrated yet modular, ONVIF compliant, OS and hardware agnostic, scalable and interoperable.

Videonetics has been ranked #1 Video Management Software provider in India, and among the top 5 in Asia ( OMDIA Informa Tech 2021 ). We remain driven by innovation, and committed to making the world a safer, smarter, happier place.

Providing an end-to-end solution for a wide range of applications

 <b>Intelligent VMS</b>	 <b>AI Enabled Video Analytics</b>	 <b>Facial Recognition</b>	 <b>Intelligent Traffic Management System</b>	 <b>VCPaaS™</b> Video Computing Platform as a Service
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Technology leader across verticals, in different parts of the world

						
<b>CITIES &amp; NATION</b>	<b>AVIATION &amp; TRANSPORTATION</b>	<b>COMMERCIAL BUILDINGS</b>	<b>INDUSTRIAL</b>	<b>FINANCIAL &amp; LEGAL</b>	<b>EDUCATION</b>	<b>CRITICAL INFRASTRUCTURE</b>



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