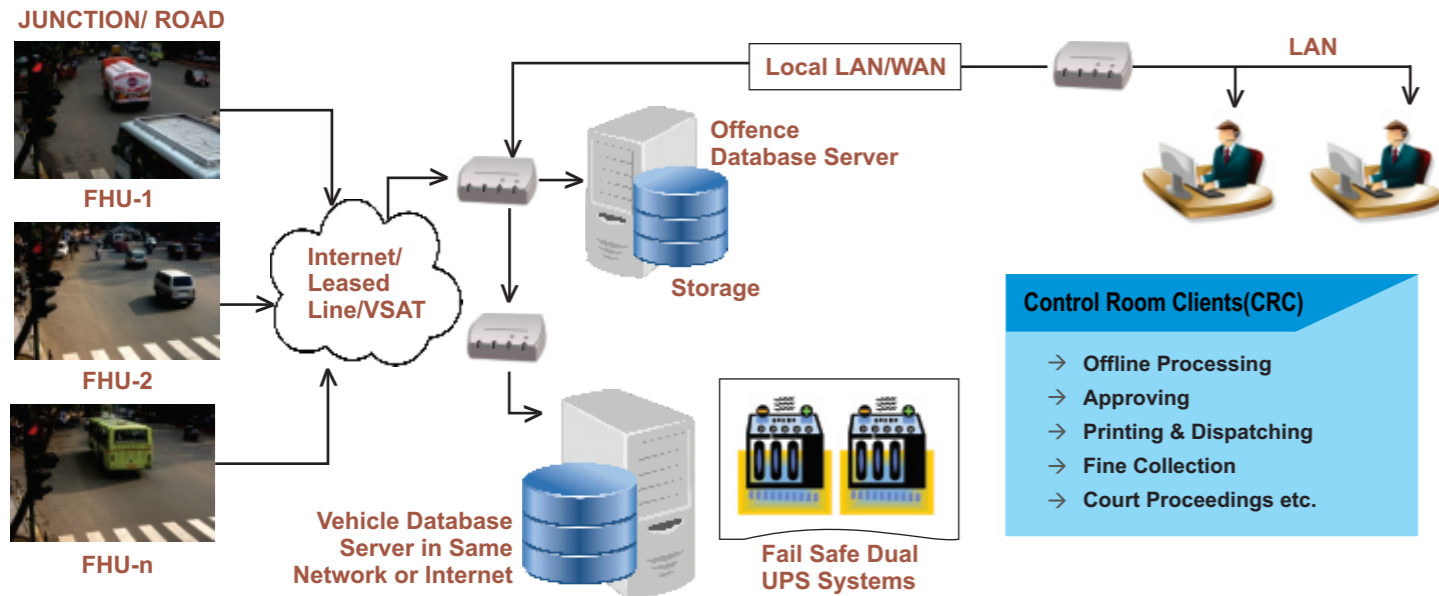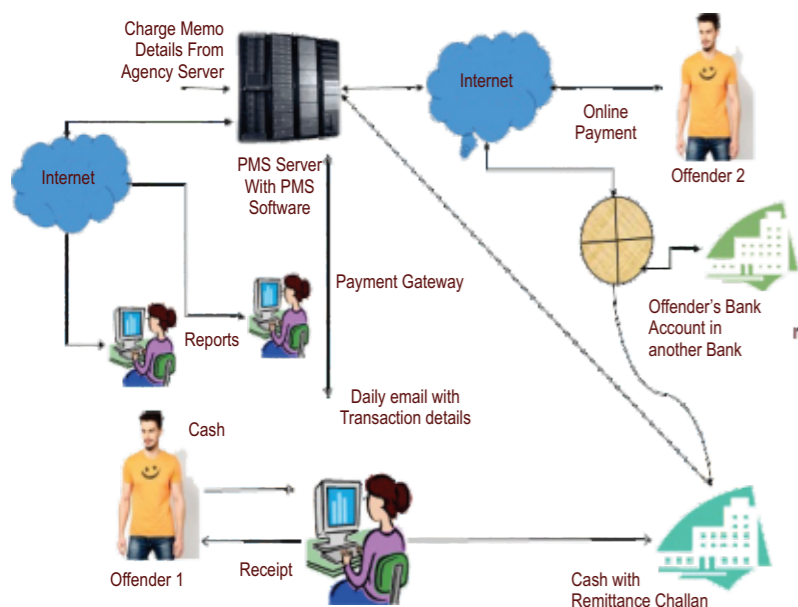## CONTROL ROOM SOFTWARE
VIOLATION PROCESSING SOFTWARE

Violation processing Software & All vehicle ANPR software

- *Automatic download of captured violations by server software from multiple locations. Automatic Number Plate recognition by System Software while downloading*
- *Configure the capture stations*
- *User can use any standard web-browser to access violations downloaded by the server software*
- *Options for penalising and dispatching violations available.*
- *Challan format can be modified according to the project/ system requirements*

- *User Management – Multiple users can be created for using the Challan Processing Software and privileges can also be set*
- *Getting vehicle/owner information from State Motor Vehicle database*
- *Various reports like Search Vehicle, User's Report, Violation Analysis Report, Dispatch Report, System Events Report etc., are available*

JUNCTION/ ROAD

FHU-1

FHU-2

FHU-n

Internet/ Leased Line/VSAT

Local LAN/WAN

LAN

Offence Database Server

Storage

Vehicle Database Server in Same Network or Internet

Fail Safe Dual UPS Systems

Control Room Clients(CRC)
→ Offline Processing
→ Approving
→ Printing & Dispatching
→ Fine Collection
→ Court Proceedings etc.

PAYMENT MANAGEMENT SYSTEMS FEATURES

Charge Memo Details From Agency Server

Internet

PMS Server With PMS Software

Payment Gateway

Reports

Cash

Offender 1

Receipt

Internet

Online Payment

Offender 2

Offender's Bank Account in another Bank

Daily email with Transaction details

Cash with Remittance Challan

- ☞ Cash payment through various collection points throughout the state
- ☞ Credit Card / Debit Card (ATM Card) online Payment with payment gateway
- ☞ Highly secured multi level Authorisation and Authentication Systems
- ☞ Data security through Encryption
- ☞ Secured Socket Layer for financial data transfer through internet
- ☞ Automation of Bank Reconciliation Process
- ☞ Easily make available financial reports and various MIS reports
- ☞ Provide quick and easier search facility
- ☞ Provide reminders/alerts

MEDIATRONIX
NP 7/ 1324, Industrial Estate, Pappanamcode, Trivandrum - 695 019, Kerala, India.
Tel +91-471-2490667, 2493312,

PDVK V 1.14-06-11-2018

MEDIATRONIX
ISO 9001:2008 certified

SPEED VIOLATION DETECTION SYSTEM
WITH ALL-VEHICLE ANPR CAPABILITY

Model M-SPEED-RD

- ◆ Spot speed enforcement using state-of-the-art 3D Radar
- ◆ Average (section) speed enforcement
- ◆ All vehicle capture system (All vehicle ANPR system)
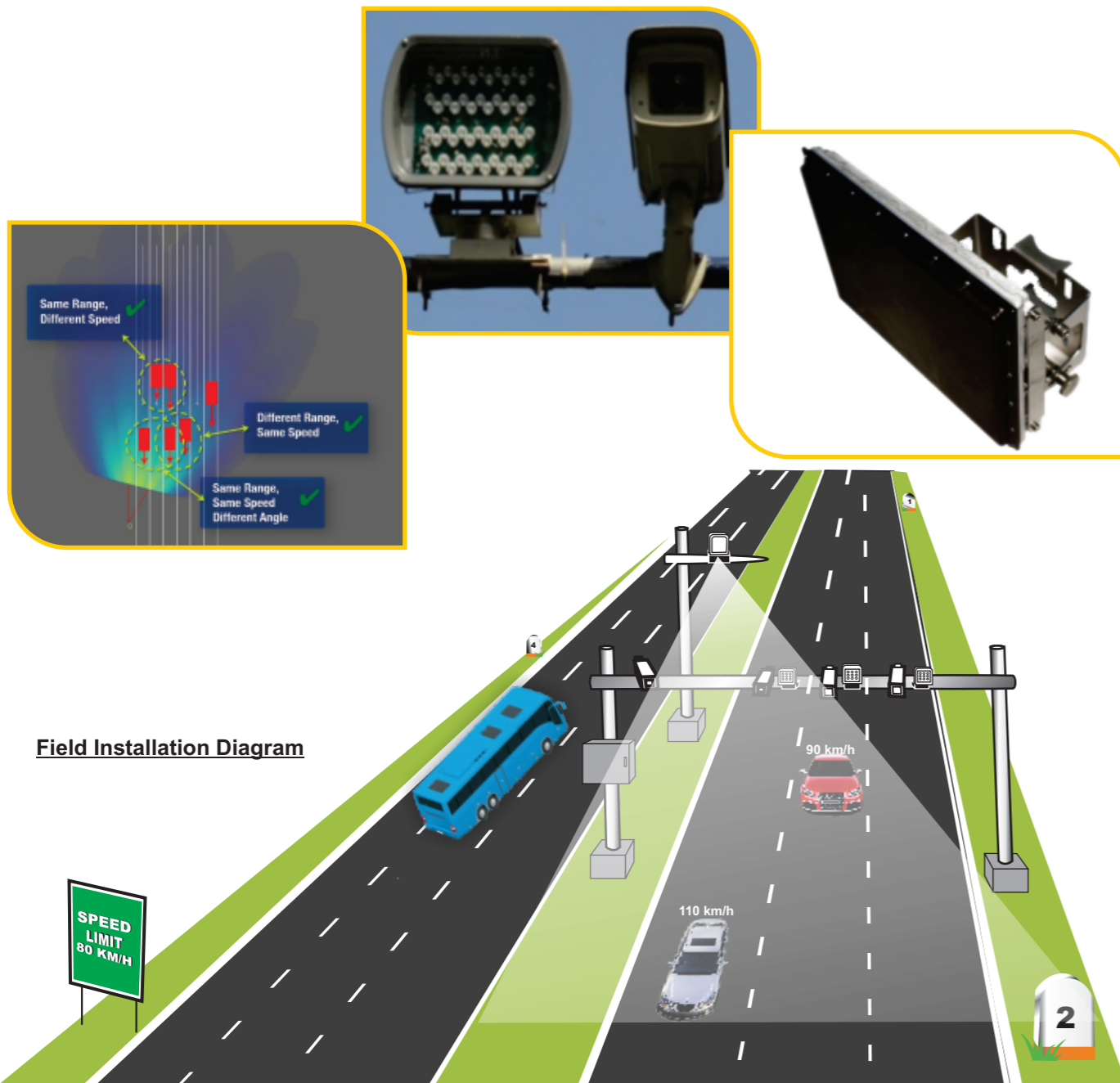
Model M-SPEED-RD

M-SPEED-RD-1X3 SYSTEM USES ADVANCED 3D TRACKING DOPPLER RADAR TO DETECT AND CAPTURE IMAGES / LICENCE NUMBER OF ALL TYPES OF VEHICLES MOVING ON ROAD, WITH SPEED INFORMATION. SYSTEM WORKS FULLY AUTOMATICALLY DURING DAY AND NIGHT CONDITIONS.

- ☞ *Speed accuracy >97% using 3D Doppler Radar*
- ☞ *Single radar covers multiple lane with multi vehicle tracking.*
- ☞ *International speed calibration certification*
- ☞ *ERTL certification*
- ☞ *CE certified*
- ☞ *megapixel high resolution ANPR/LANE camera*
- ☞ *Court evidence wide angle camera capture*
- ☞ *Capable of capturing images of vehicles (including 2 Wheelers) at Day & Night*
- ☞ *Capable to capture both retro & non-retro reflective license plates.*
- ☞ *Very high vehicle detection accuracy compared to Video analytics*
- ☞ *Hotlist detection & alert*
- ☞ *SMS/email alert*

- ☞ *90% ANPR accuracy for standard number plates*
- ☞ *No inductive loops / no road cutting required*
- ☞ *Light sensor for all round image quality*
- ☞ *Uses global shutter camera with synchronised high power flash*
- ☞ *Lightning protection, on-line health monitoring*
- ☞ *Motorised zoom lens for perfect focus at day& night*
- ☞ *Software feature – Challan processing and payment management software option (cash counter and e-payment method)*
- ☞ *Software supports clustering of servers for 24 x 7 fail safe operation*
- ☞ *All vehicle license plate capture capability*
- ☞ *Spot speed and average speed capture capability. (optional)*
- ☞ *Additional ANPR grade 24 x 7 video recording at site (optional)*

3D Doppler Technology

The most advanced 3D object tracking Radar technology provides certified, highly accurate and reliable speed and position data. Tracks many vehicles and multiple lanes simultaneously. Approaching or receding configuration

Field Installation Diagram

SPECIFICATION:

Technology	M-SPEED system uses advanced 3D Doppler radar to detect and capture images / license number of all types of vehicles moving on road, with speed information. System works fully automatically during day and night conditions. Useful for all vehicle number plate capture for crime investigation and also for speed enforcement.
Road side hardware	
Image Capture subsystem	
Primary Speed Sensing / Vehicle detection (one per road)	Advanced 3D Doppler Radar - 24GHZ Radar, Detects and measures speed of vehicles, up to 240 Km/hour, multi lane operation. Speed Accuracy better than 97%.
ANPR Camera Model : ANPR-CAM-GS1-X (ANPR camera one per lane)	**Sensor:** Mega pixel resolution, CMOS Global shutter sensor, Exposure time 1ms - 10µs, (1:1000 – 1:100,000) **On board Processor:** Video processor at 432 MHZ, 10/100 base T Ethernet, Trigger in, Flash strobe out Lens :Motorized zoom, focus lens.
Evidence Camera(One per road)	**Sensor:** Mega pixel resolution, CMOS Global shutter sensor, Exposure time 1ms - 10µs, (1:1000 – 1:100,000) **On board Processor:** Video processor at 432 MHZ, 10/100 base T Ethernet, Trigger in, Flash strobe out, wide angle lens
Infrared Flash Illumination(One per lane) Model :M-Speed-RD-IR6	Infrared flash for image capture at night, Synchronized flash with global shutter of camera, Peak pulse power > 600 watts, Average power < 25Watts, Wavelength: 850 nm, Flash power sufficient to capture vehicle images at night. Capability to capture retro reflective and non-reflective number plates.
Light sensor for Exposure control	Light sensor (5 decade measuring range) to be used for adjusting camera parameters (Exposure time, Gain) to get optimum image quality under all conditions.
Vehicle image Capture	Along with number plate, high quality image of vehicles (all types of vehicles, including two wheelers), also to be captured at Day and Night for all vehicles including two wheelers. Useful for crime investigation, anti-terrorism activities etc. Evidence camera capture wide angle shot of full road and surroundings with minimum 2 images of vehicle moving on the road
Operating Modes	
Speed Enforcement Method	**Spot speed enforcement :** ANPR camera captures vehicle image / Licence plate number based on trigger from Radar sensor with time stamp and speed information. **Average (section) enforcement option:** with NTP server synchronised time
Vehicle speed accuracy	Speed measurement beyond 240 Km/hour with accuracy of 97%
All Vehicle - ANPR capture mode	Captures all vehicles passing through the installed location. All vehicle images and numbers including 2 wheelers are kept in data base for real time alerts/ search for crime analysis. Vehicle images are captured even if the number is not automatically detected (eg: damaged/ unreadable license plates or even absence of number places
ANPR Accuracy	Better than 90% for standard number plates
Vehicle detection rate	>95% of all vehicles captured under all condition irrespective of number plates quality in free flow traffic conditions(System should be installed on free flow stretches to obtain above accuracy
Other features	
Road side processing Hardware and Software	System controller: Local storage of video from ANPR camera
SVDS Configuration	1 or 2 road, with 2 / 3 /4 lanes per road
Power supply	On line DC UPS for road side hardware with min 3 Hr back up, and also soft shutdown of Hardware in case of power failure with auto restart. Utility power supply with power meter
Health Monitoring and control	Temperature, battery , UPS, Mains voltage status, power supply working status, vibration sensor, (Anti tamper with siren) camera status, remote control of reset, shutdown
Protection	Protection against lightning, under/over voltage, Low power standby mode for long period mains power failure condition
Remote notification methods	Cloud based remote notification.
Field Enclosure	Pole mounted outdoor type with Rain canopy etc.
Camera mounting	Gantry / cantilever option
Road side connectivity requirements	
Suitable high speed connectivity to match the requirements – ADSL / Leased Line / OFC/3G/4G	