



सत्यमेव जयते

Ministry of Road Transport and Highways  
Government of India

# eTransport

A comprehensive suite of Transport services



# eTransport Project



“

Transport Mission Mode Project (eTransport MMP), has successfully **automated RTO operations** across the country, set up a consolidated **nationwide transport database with real-time update and availability**, and has launched a host of **citizen-centric and trade-centric applications**.

## Key services under eTransport



### VAHAN

Services related to Vehicle Registration, Permit, Taxation, Fitness and allied processes.



### SARATHI

One-stop solution for the issuance of various types of licenses by the Transport Department



### ECHALLAN

Comprehensive solution for Traffic enforcement



### POLLUTION CERTIFICATE

Solution to issue Pollution Under Control Certificates to vehicles



# eTransport Ecosystem



**Automobile & Component Manufacturers**

- ✓ Platform for model certification
- ✓ Vehicle Inventory Upload
- ✓ Integration with Vehicle registration & Component Fitness Process

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**Dealers**

- ✓ Integrated Vehicle Registration process through Vahan

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**Banks**

- ✓ ePayment Integration
- ✓ Improved Loan processing system through data access

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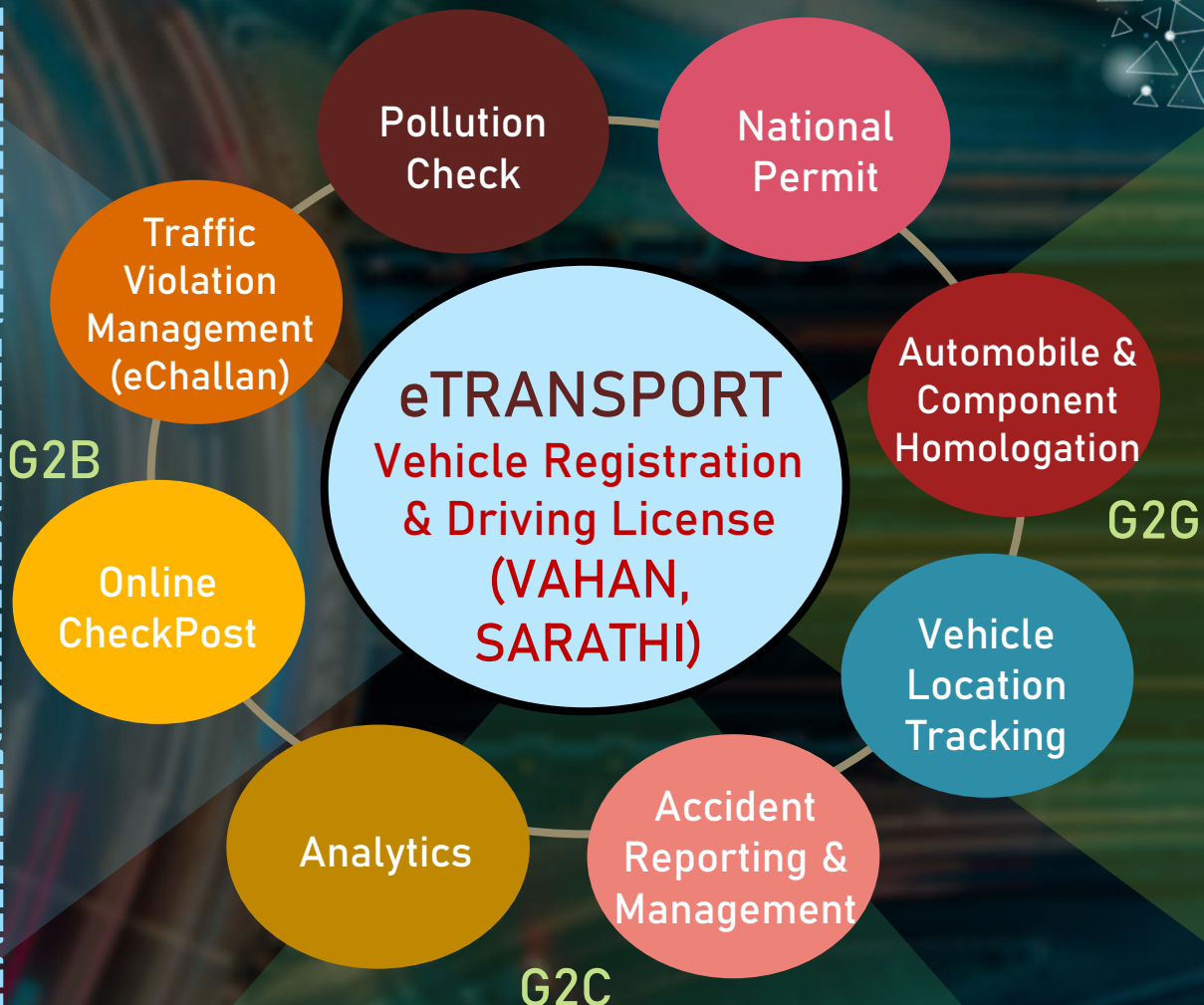
**Insurance Companies**

- ✓ Identification of uninsured vehicles
- ✓ Easy Claim Settlement process

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**Transporters**

- ✓ Easy, efficient and transparent access to services
- ✓ Anytime, Anywhere access to services
- ✓ Paperless, Cashless Transactions



**Pollution Check-Centre**

- ✓ Real time access to vehicle data
- ✓ Easy certification process

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**FASTag/ NHAI**

Data access through linkage with vehicle (Vahan)

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**Courts**

Case Pendency getting Reduced

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**External Applications (service access through API)**

UMANG, Digilocker, eDistrict, eMitral. SARAL, SAKALA, MahaOnline, etc.

**Transport Office/Authority**

- Complete automation of operations
- Efficient Workflow & service delivery mechanism
- Paperless operations

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**Other Government Agencies (Data Consumers)**

GSTN/eWay Bill, Ports, NCRB, NATGRID, CCTNS, State & Central Police, etc.

**Citizens**

- ✓ 100+ Online Citizen Centric Service
- ✓ NextGen mParivahan mobile App



# Vahan- Vehicle related solutions



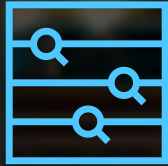
Homologation/  
Type Approval of  
Vehicles, CNG,  
SLD, VLTD  
modules



Vehicle  
Registration:  
Permanent/  
Temporary

Vehicle  
Fitness and  
Inspection

Permit –  
Contract, Stage,  
National Permit,  
etc.



Taxation  
Module and  
Tax Service.

Vehicle  
Conversion and  
Alteration

Smart Card,  
KMS & HSRP  
modules

Online Fancy  
Number,  
CheckPost

Payment  
Gateway  
Interface

Enforcement  
Module



100+ Online  
Citizen/Trade  
Services



# Statistics: Vahan



Vehicle Registrations

30 cr.

Transactions

134 cr.

RTOs

1340

Fitness  
Centres

200+

States

34

Faceless  
Services

33

In 21 States

Revenue

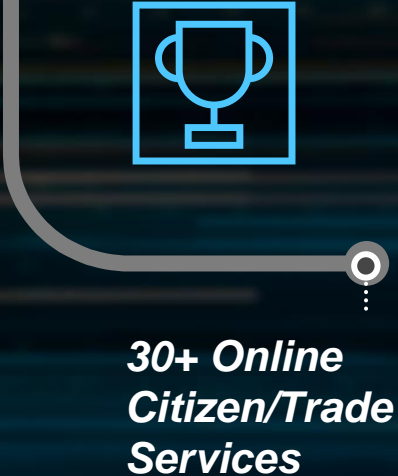
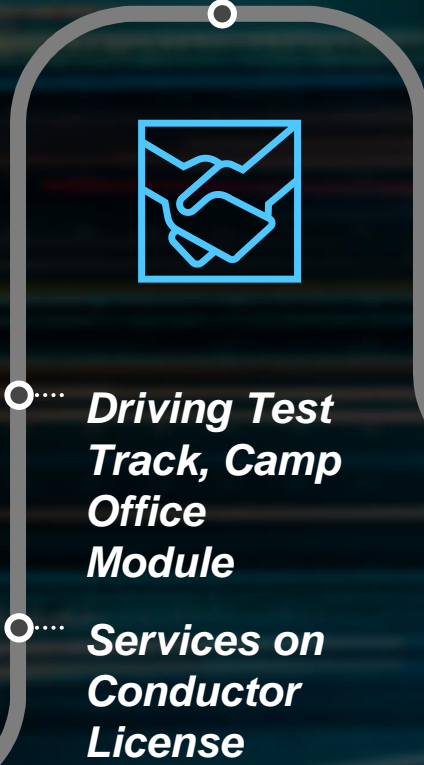
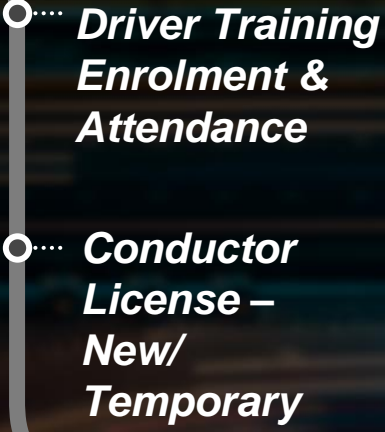
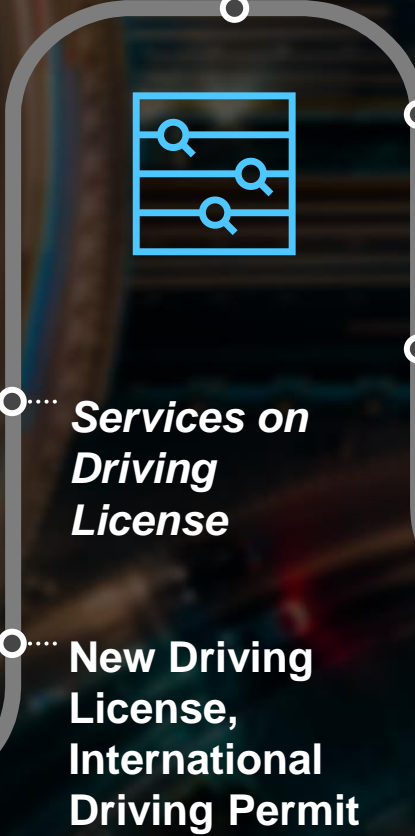
₹5.51L cr.



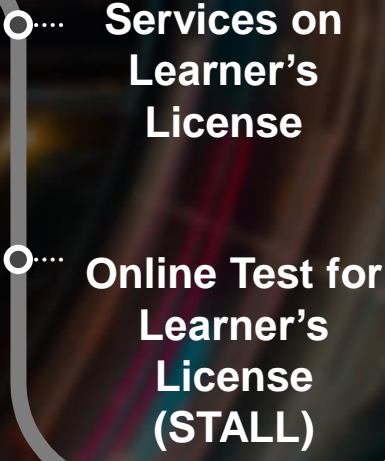
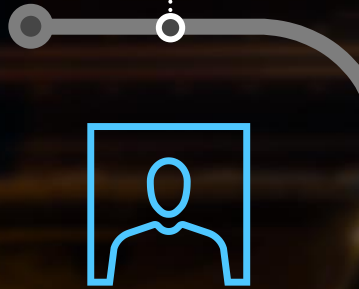
# Sarathi- License related solutions



Appointment Management Module



New Learner's License





# Statistics: Sarathi



Digitized LL & DL

~34 cr.

Till date

Digitized  
Driving Schools

29,733

RTOs

1321

States

34

Faceless  
Services

37  
In 18 States

Revenue

₹11,364 cr.



# eChallan- Traffic enforcement solution

*Provision for addition of various details – photo/video, impounded vehicle evidence*

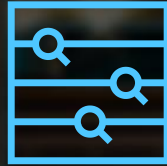
**On-spot challaning**  
(online/offline) by Enforcement Officials



**Automatic calculation of penalty amount**  
(based on challan category)

**On-spot/portal-based challan settlement by Citizens**  
(online/PoS based payment)

**Back-end Integration with Vahan/Sarathi**



**Multiple challaning modes:** PoS, CCTV, Camera App etc

**Geo-tagging of Challan spot – capturing of image**

**Multiple Challan Accused Options** - Owner, Driver, Conductor, Passenger

**Integrated with ITMS/Smart Cities**

**On-spot Court/Virtual referral**, as required

**Facility for easy search/filter of offences**



**Citizen Sentinel – Traffic Violation reporting**





# Statistics: eChallan



## eChallans

13.84 cr.

Till date

## CCTV Notices

3.2 cr.

Till date

## Virtual Court Collection

₹ 281 cr.

## Virtual Court Cases

2 cr.+

## Vehicles

### Impounded

16 L

### States

30

## Penalty Collection

₹ 8,040 cr.



# Pollution Check Certificate



A centralized application for Pollution Check to organize certificates for various States

Pollution check certificate Issuance (to pollution compliant vehicles)

Updating of National Database with Pollution compliant/non-compliant vehicles

Pollution Control authorities can audit devices periodically, and thereby enabling Transport Offices to continue/ cancel licenses



Pollution Check Centre



National Database



Pollution Check Certificate



# Statistics: PUCC



**PUCC issued**

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**16.26 Cr.**

Till date

**PUCC Centres**

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**37,843**

**Manufacturers**

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**32**

**States**

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**24**

**Revenue**

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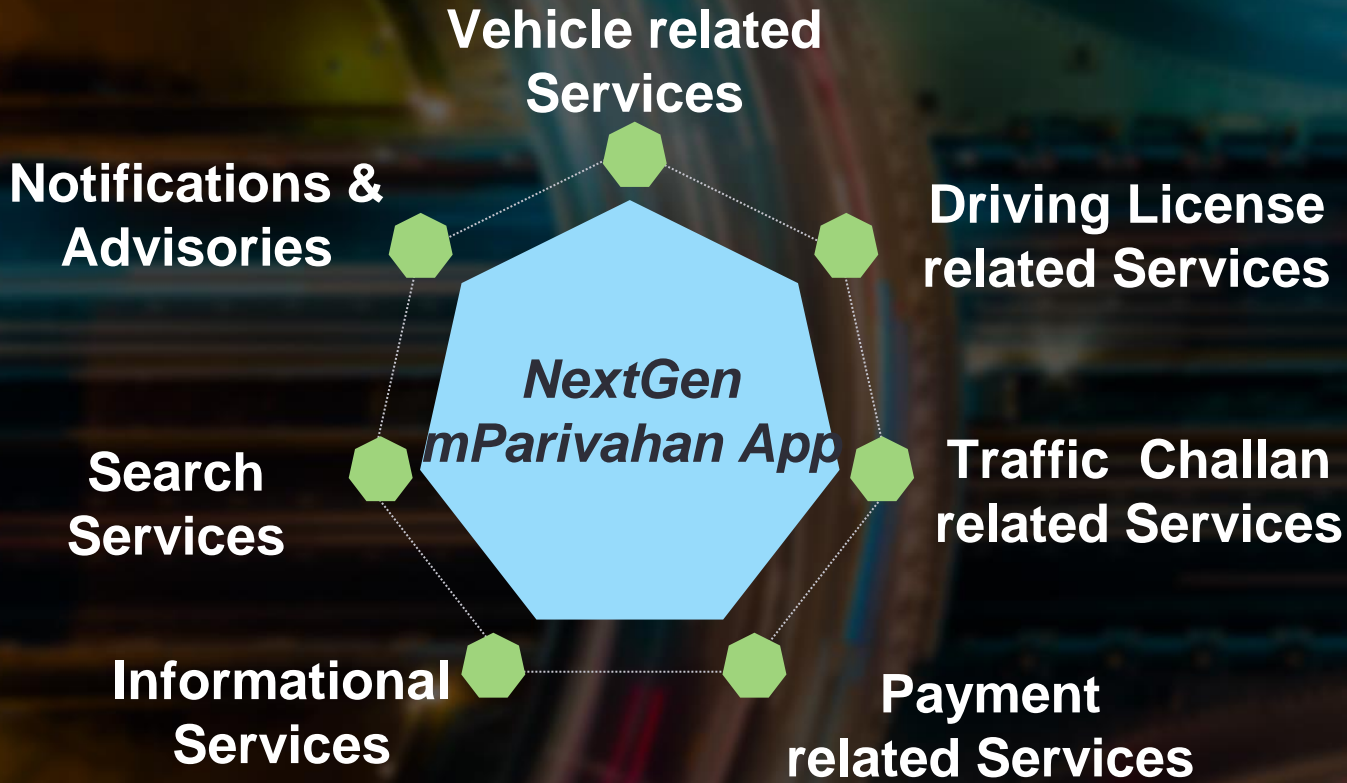
**₹70.38 cr**



# NextGen mParivahan Mobile App






One of the most downloaded and highest rated Government apps



**8.84 crore**  
downloads since  
launch

**Other integrated services**

-  **Citizen Sentinel:**  
Report Traffic Violation & Road Accident Reporting (crowdsourcing for iRAD System)
-  **State specific Services:**  
activated using Geofencing
-  **External Services:**  
FASTag, NHAI, Virtual Court, etc



# Allied services

## Homologation

- ✓ Integration with automobile manufacturers' inventory,
- ✓ Automatic data-capture of technical parameters and sale price
- ✓ Complete lifecycle processing of vehicle



**Total Inventory Uploaded**  
17.61 Crore+

**Manufacturers**  
1326

**Type Approval Agencies**  
11

## Fancy Number

- Aimed at bringing transparency into premium registration number allocation
- ✓ e-bidding for online booking of premium registration numbers
- ✓ Minimal auction registration fee



**Revenue**  
Rs. 2730 Crore+

**Fancy Nos. Allocated**  
~33 lakh

**States/UTs**  
27

## Conversion to EV/CNG

- ✓ Kit manufacturer approval from authorized test agencies.
- ✓ Approval is done on the basis of component tests, engine tests, vehicle tests and other requirements



**Retro fitment Centres**  
95

**CNG Kit Makers**  
38

**EV Kit Makers**  
4



# Allied services

## Checkpoint

- ✓ Allows online tax collection
- ✓ Helps citizens avoid the trouble of physically coming to the transport office.
- ✓ Verification of payment receipt (e-receipt) through QR code



**Revenue**  
~Rs. 2653 Cr.

**States/UTs**  
20

## National/All India Tourist Permit

- ✓ Computerized process of obtaining Permits
- ✓ Completely integrated with Vahan
- ✓ Features like online payment of Permit, checking Transaction /Vehicle Number/Bank Reference number status, among others.



**National Permits issued**  
1.23 Crore +

**Revenue from National Permit**  
~Rs. 20,200 Crores

**All India Tourist Permits issued**  
47,000+

**Revenue from AITP**  
~Rs. 276 Crores



# Faceless Services



Several services of Vahan and Sarathi made faceless utilizing Aadhaar authentication.



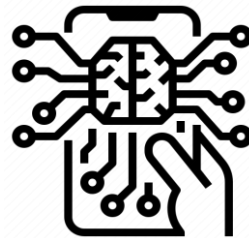
Extensive customizations in Vahan, Sarathi and eChallan applications leveraging **Aadhaar** and **Artificial Intelligence**



Face Recognition



eSign Implementation



Artificial Intelligence



Color Blindness Test



## Benefits of Faceless Services

1

Ease of service delivery



2

Transparency in operations



3

Minimal to zero documentation



4

No need to visit Transport Office





# Faceless Services: Vahan



- Change of Address in RC
- Transfer of Ownership
- Hypothecation Addition
- Hypothecation Termination
- Hypothecation Continuation
- Issue of NOC
- Issue of Duplicate RC
- Renewal of Permit
- Fresh Permit
- Transfer of Permit (Case of Death)
- Transfer of Permit
- Duplicate Permit
- Permit Surrender
- Replacement of Vehicle
- Permanent surrender of Permit
- Retention of Registration Number

- Renewal of Permit Authorization
- Renewal of Trade Certificate
- Issue of Trade Certificate
- Additional MV Tax
- Alteration of Motor Vehicle
- Cancellation of Permit
- Cancellation of RC by Authority
- Change of Address in the Permit
- Composite Fee
- Conversion of Vehicle
- Duplicate FC
- Non-Use Intimation
- Permit Application
- RC Particulars Against Fee

- Renewal of Registration
- Special Permit
- Temporary Permit
- Duplicate Permit
- Permit Surrender
- Transfer of Permit (Death Case)






# Faceless Services: Sarathi

- Issue of Learners License
- Issue of Duplicate DL
- Renewal of DL
- Change of Address in DL
- Replacement of DL
- Issue of PSV Badge
- Driving License Extract
- Issuance of International Drivers Permit
- Change of Name in DL (Only for Female Citizens)
- Issue of Conductor License
- Renewal of Conductor License
- Change of Address in Conductor License
- Duplicate Conductor License

- Endorsement to drive Hazardous material
- LL Endorsement
- Surrender of COVS in DL
- Change of Date of Birth in DL
- Change of Name in LL
- Change of Address in LL
- Change of biometrics in DL
- Issue of NOC
- Cancellation Of NOC
- Re-Validation Of Expired DL
- Issue Of Duplicate LL
- AEDL For Defence DL Holder
- Additional Endorsement to DL
- Issue Of Driving Licence

- 
- Endorsement To Drive In Hill Region
  - Issuance Of Learner and Driver License
  - Issue Of Duplicate PSV Badge
  - Renewal Of PSV Badge for DL
  - Change of Biometrics In CL
  - Change Of Name In CL
  - Renewal Of LL



# Vehicle Location Tracking and Emergency Alert System (VLT&EAS)



Real-time identification and tracking of vehicle and its location on map

Display and monitor emergency alerts when Panic Button is pressed

Status information about vehicle on various parameters

Geo-fencing & Geo-fence alerts with remote speed management

Route mapping, scheduling and playback option

Integration with National Emergency system for quick response in case of emergency

End to end solution: Command and Control centre





# Vehicle Location Tracking and Emergency Alert System (VLT&EAS)

Implemented in 20 States

Implementation in advance stage in remaining States

~ 32,000 vehicles on boarded

~ 2400 emergency alerts sent to NERS



AIS 140 COMPLIANT



VAHAN HANDSHAKING



Integrated with NERS / 112 for quick response in case of emergency



Real-time identification of vehicle and its location on map for immediate response



Secure Communication , Device management & real-time eSIM validity



Compliance of Web Security Guidelines of GoI



Mobile App



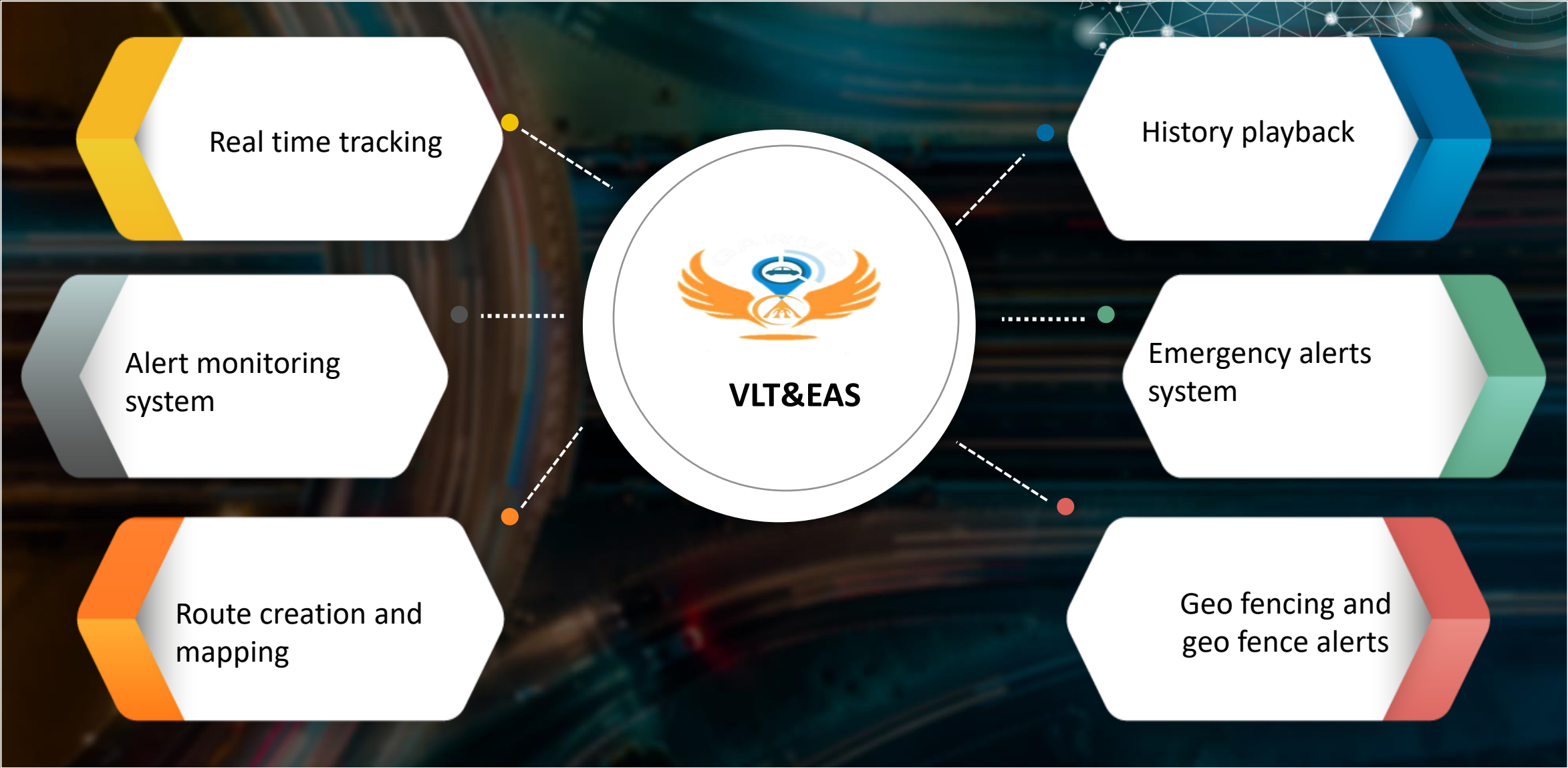
# Vehicle Location Tracking and Emergency Alert System (Other Sector)



- 
-  Work Flow / Role Based Login
  -  Capturing of real time GPS Location
  -  SMS Alert to all Stakeholders
  -  Hosting of WEB Application
  -  Compliance of Web Security Guidelines of GoI
  -  Integration with Map Services
  -  Integration of web & mobile apps with external systems like Vahan, Sarathi etc

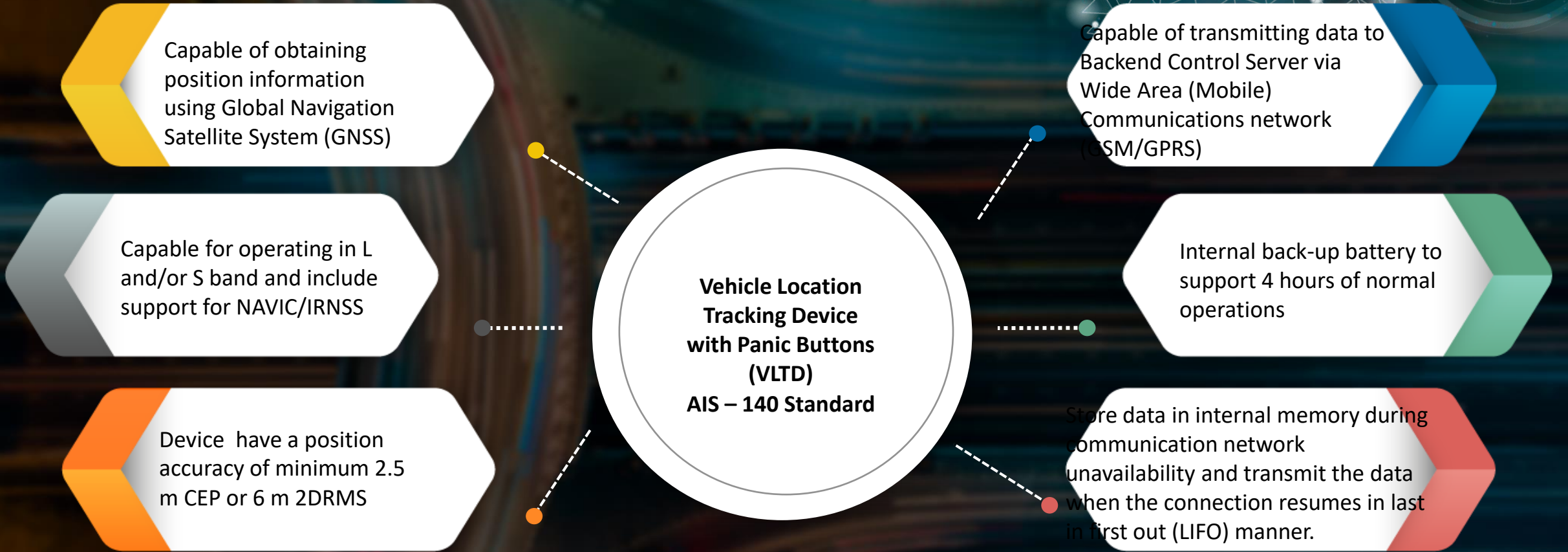


# Features of System





# VLTD AIS -140 Standard



Support Embedded SIM to cater to the automotive operational requirement such as vibration, temperature and humidity and provide long life span with at least 10 years life and more than 1 million read/write cycles

# VLTD AIS -140 Standard (contd..)

Data Receiving Frequency –  
Engine On (30 Secs - 2 Mins)

Data Receiving Frequency –  
Engine Off (2-10 Mins)

Data Receiving Frequency –  
Emergency Alerts(5Sec – 30  
Sec)

Vehicle Location Tracking  
Device with Panic Buttons  
(VLTD)  
AIS – 140 Standard



Parameters – 49 different  
parameters received from  
VLTD

Availability of 16 different type  
of alerts

Fallback Emergency Data  
through SMS



# e-Challan Workflow



Virtual Courts

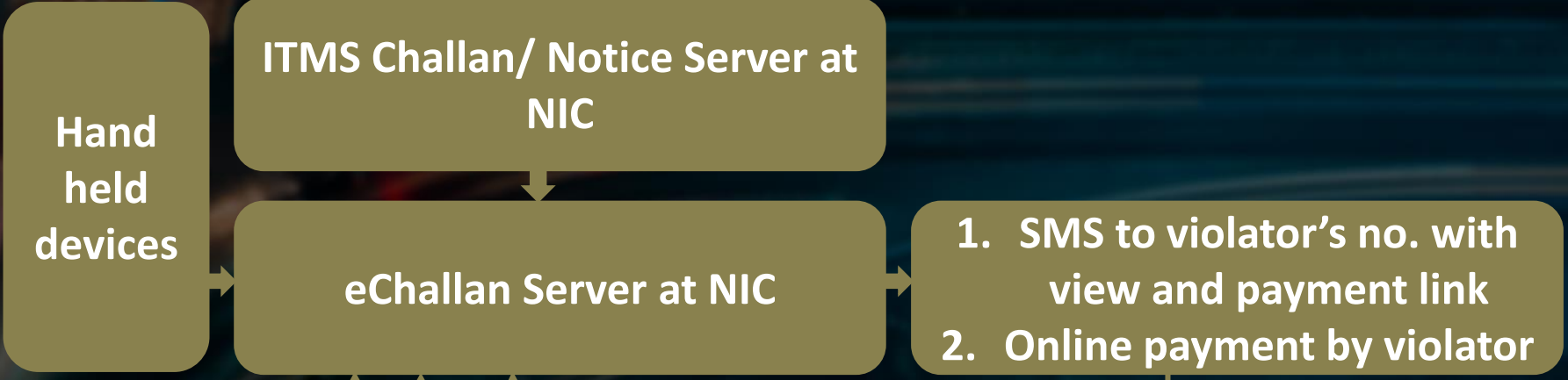


*Violation reported as Photo/Video*



*Validated Data*

APPLICATION DEVELOPED BY NIC



*Violation compounding via payment gateway*



Regular Courts





# Thank You