



# Yatis EV Guide

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Webapp



Mobile App



Streaming  
Services



API



Webhooks

## Tracking / Safety

- GPS Tracking
- OSM (free) maps
- Google Maps
- Geofencing
- Device Tamper
- History
- Remote Control

## Usage

- Journeys
- Distance calculations
- Charging
- Power consumption

## Driving Behaviour

- Hard Acceleration
- Hard Braking
- Overspeeding
- Towing
- Cornering
- Driving Score

## Advanced Analytics

- Excessive Revving
- Non Whitelisted vehicle
- SoH and RuL estimates

## Vehicle Data

- Detailed BMS reads
- Fault detection

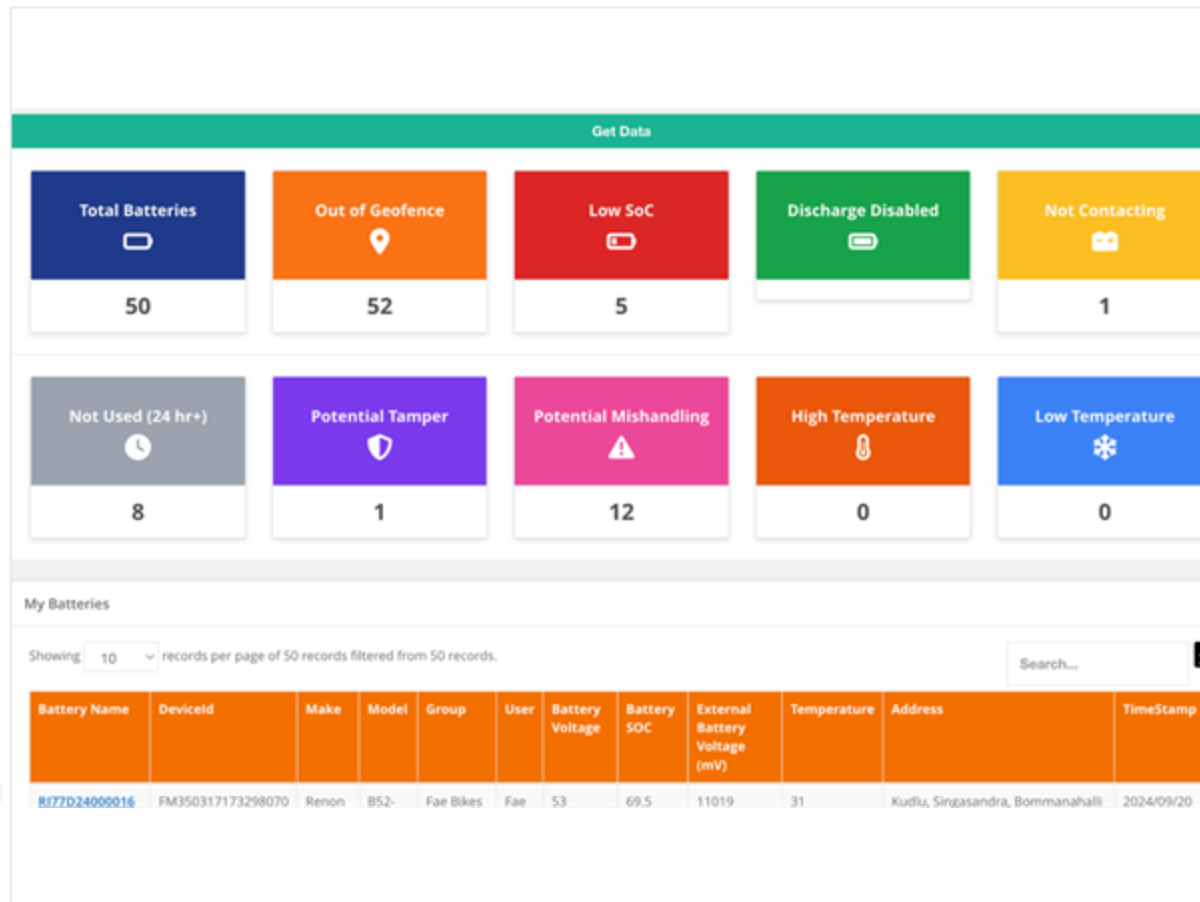
## Fault Tolerance

- Autoscaling Servers
- Multiple TCP server
- Replicated DB
- Sentinel Bots
- Vertical and Horizontal Scaling

## Security

- HTTPS, WSS
- JWT tokens for APIs
- RBAC
- VPC
- Sentinel Bots

# Daily Operations Dashboard



## BENEFITS

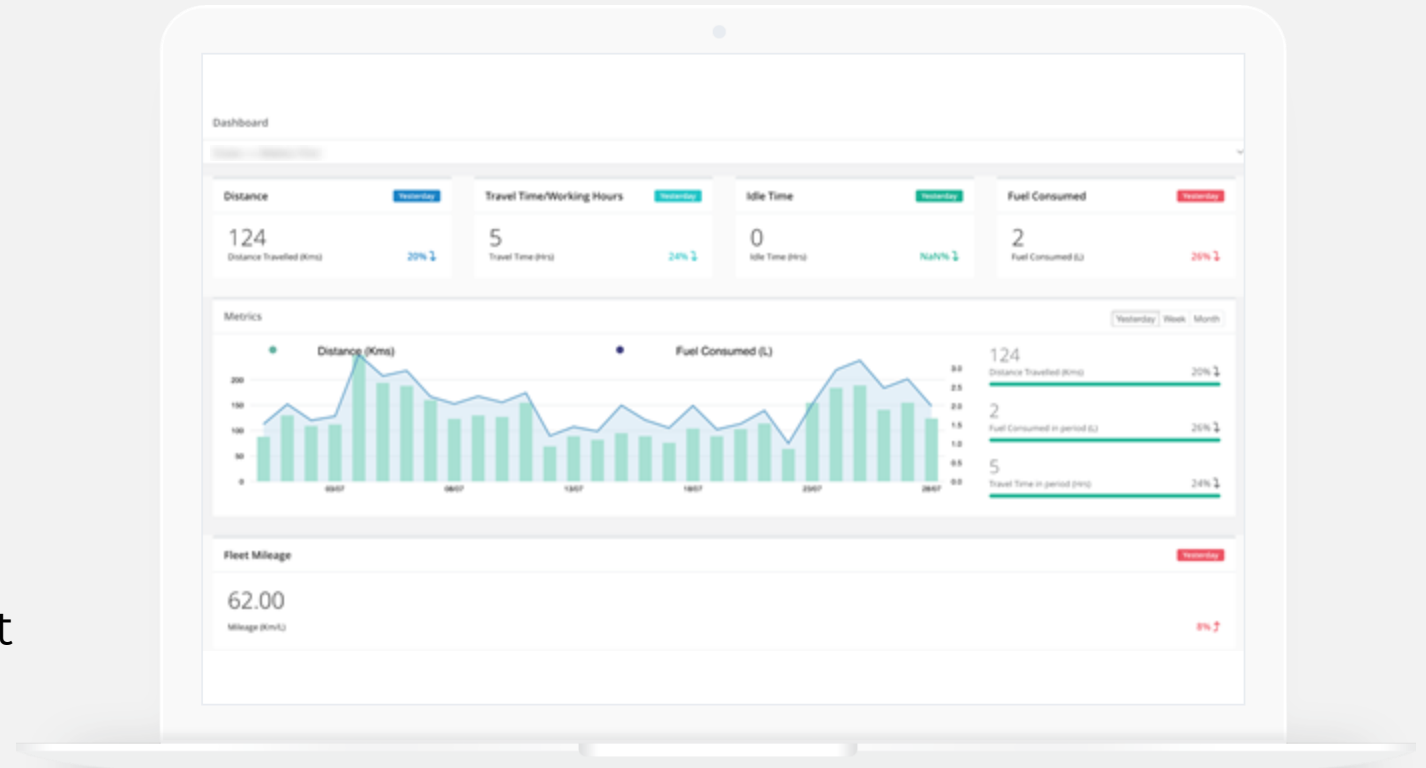
- Highlights key issues that require attention for daily operations like
  - Low SoC
  - High SoC
  - Unused Vehicles
  - Vehicles Operating outside Geofences
- Maintain asset quality and visibility

# Fleet Activity Dashboard

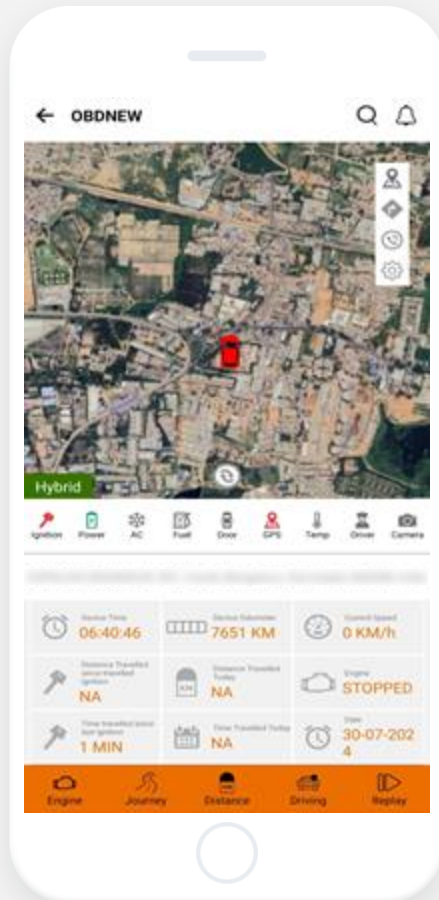


## BENEFITS

- 🔄 Monitor Fleet Activity
- 🔄 Interactive Graphs
- 🔄 Check fleet metrics across week and month
- 🔄 Monitor Kms and Wattage of the fleet
- 🔄 Non EV mode also supported



# EV Status



## BENEFITS

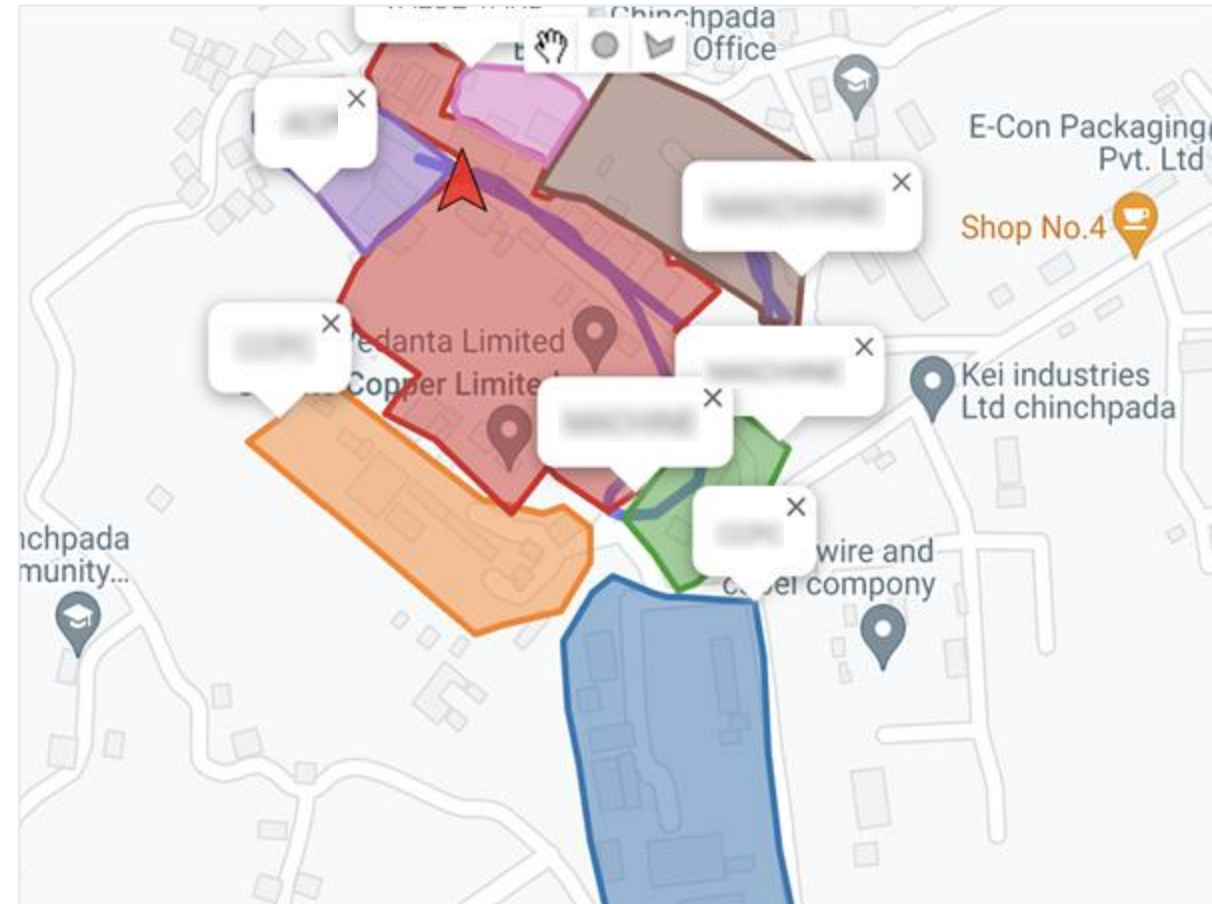
- 🔋 The readiness of the fleet on your finger tips
- 🔋 Access data with graphs and intuitive UI on mobile and web apps

# Geofences



## BENEFITS

- Setup up multiple geofence including circles and polygon geofences
- Get alerted when Geofence is broken

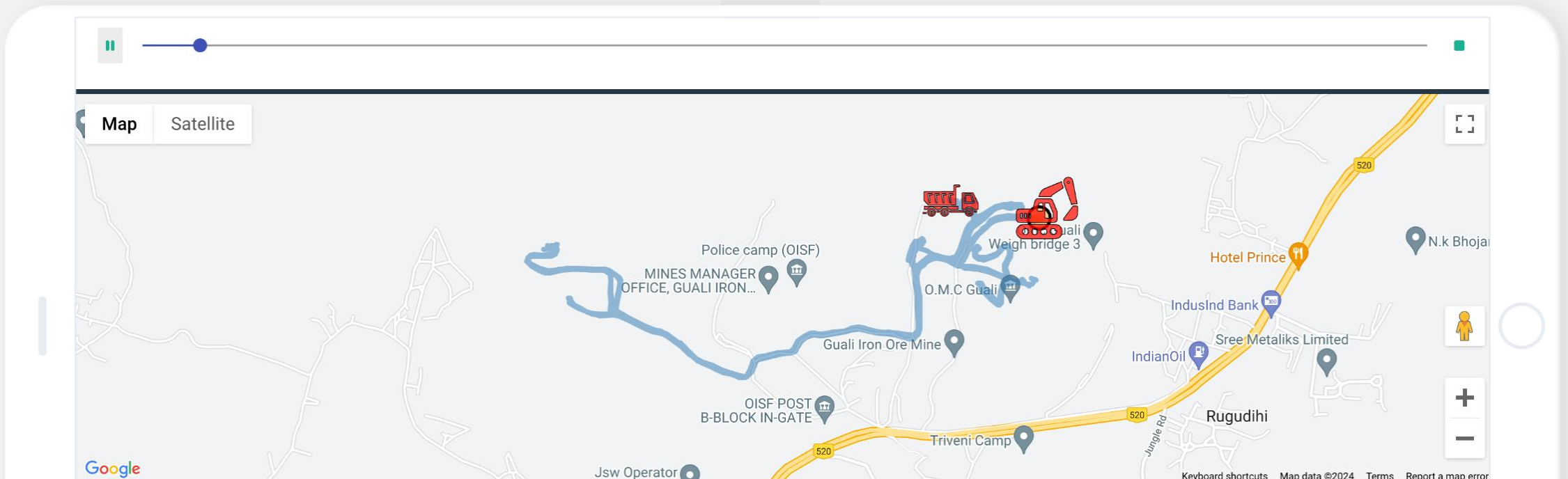


# Smart Track and Trace



## BENEFITS

- 🕒 Review historical movement data
- 🚚 Support track and trace with multiple vehicles simultaneously



# Charging Details



Name	Vehicle Type	Alarm	Time
[REDACTED]	Car	Charging Start	2024/07/28 10:19:42
[REDACTED]	Car	Charging Stop	2024/07/28 10:50:12
[REDACTED]	Bike	Charging Start	2024/07/28 07:07:53
[REDACTED]	Bike	Charging Stop	2024/07/28 09:01:26
[REDACTED]	Bike	Charging Start	2024/07/28 09:47:27
[REDACTED]	Bike	Charging Stop	2024/07/28 09:49:57
[REDACTED]	Bike	Charging Start	2024/07/28 12:17:25
[REDACTED]	Bike	Charging Stop	2024/07/28 14:03:37

## BENEFITS

- 🔍 Detailed Charging Data
- 🔍 Get Detailed reports on exact times and locations of Charging



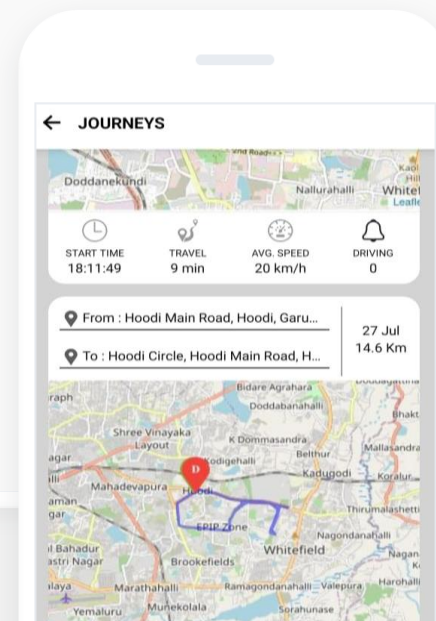
# Trips Reports



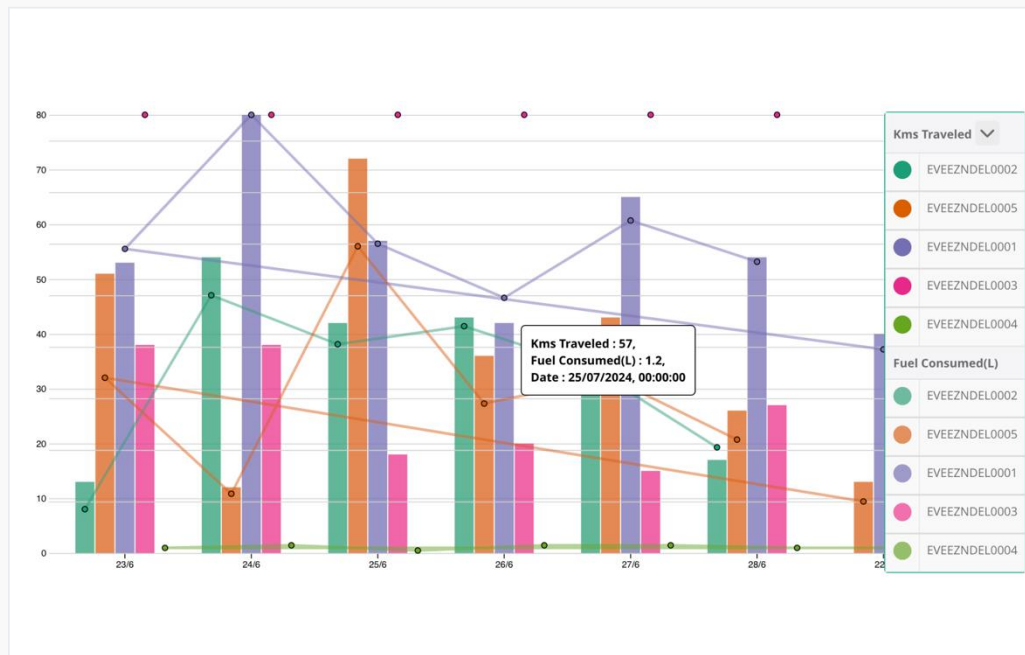
## BENEFITS

- Trips Reports with map overview to quickly see where vehicles went
- Get energy consumed per trip
- Tag trips based on their business implications

Name	Vehicle Type	Start Day	Start Time	Start Address	End Time	End Address	Distance Travelled (kms)	Fuel Consumed (L)	Job Id	Is Official	Journey Image	Edit
	Car	2024/07/11	2024/07/11 17:22:04		2024/07/12 01:17:37	4th Cross Muneshawara Layout, Mangammanapalya, Bommanahalli Zone, Bengaluru, Bangalore South, Bangalore Urban, Karnataka, India	86.22	1.6		<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Car	2024/07/12	2024/07/12 13:05:42		2024/07/12 20:53:07	Kudlu, Singasandra, Bommanahalli Zone, Bengaluru, Anekal, Bangalore Urban, Karnataka, India	67.69	1.32		<input checked="" type="radio"/> Yes <input type="radio"/> No		



# Report with Interactive Charts



## BENEFITS

- 🕒 Compare vehicles based on distance travelled, working hours, KWh consumed and mileage
- 🕒 Identify the bad vehicles and improve your fleet metrics

# Detailed Parameters and Faults

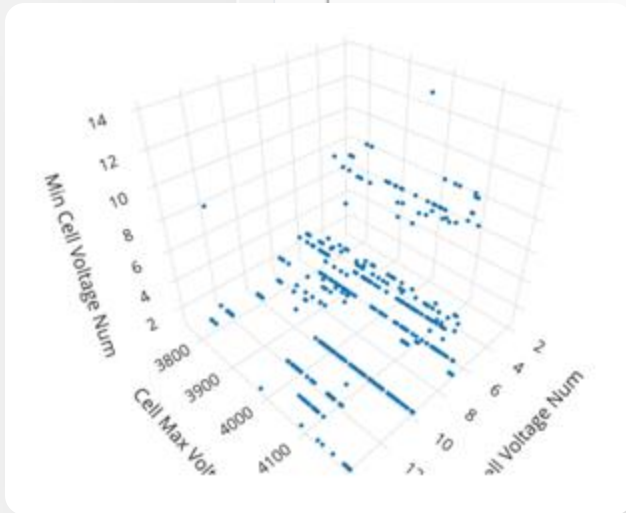
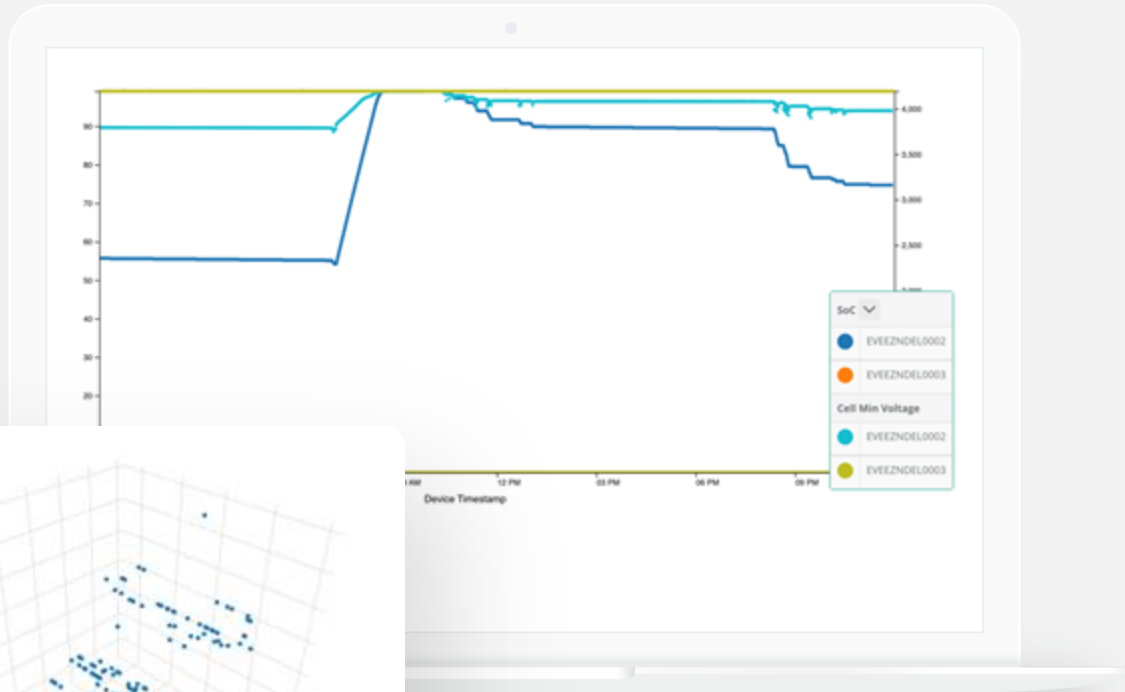


## BENEFITS

- Record all detailed parameters and faults from BMS
- This data forms the bedrock for all future analysis

Cell4 Voltage	Cell5 Voltage	Cell6 Voltage	Cell7 Voltage	Cell8 Voltage	Cell9 Voltage	Cell10 Voltage	Cell11 Voltage	Cell12 Voltage	Cell13 Voltage	Cell14 Voltage	Cell15 Voltage	Cell16 Voltage	Temperature Frame Number	Temperature Sensor1	Temperature Sensor2	Temperature Sensor3	Temperature Sensor4
3319	3319	3319	3319	3319	3319	3319	3319	3312	3326	3319	3319	3318	1	22	22	22	24
3272	3267	3267	3271	3270	3266	3267	3267	3267	3266	3265	3268	3267	1	22	22	22	24
3303	3302	3304	3304	3303	3304	3304	3304	3304	3304	3304	3304	3302	1	22	22	22	24
3302	3300	3301	3302	3301	3302	3302	3302	3300	3301	3301	3302	3301	1	22	22	22	24
3305	3304	3305	3305	3305	3306	3306	3306	3305	3306	3305	3306	3304	1	22	22	22	24
3307	3306	3307	3307	3307	3307	3307	3307	3307	3307	3307	3307	3305	1	22	22	22	24

# 2D/3D Interactive Charts



## BENEFITS

- 🔄 The 2D and 3D chart let you visualise patterns using multiple parameter
- 🔄 Compare Vehicles with each on key parameters

# Vehicle Details



## BENEFITS

- 🔄 Capture multiple OEM parameters
- 🔄 Support for several battery and vehicle types

A screenshot of a vehicle details form displayed on a tablet. The form has a light gray background and rounded corners. It contains several input fields and dropdown menus. The 'Variant' dropdown is highlighted with a green border. The 'Icon Type' dropdown is set to 'Car'. The 'Fuel Type' dropdown is set to 'Electric'. The 'Engine Capacity' field is set to '1.612' and the 'Fuel Tank Capacity' field is set to '50.4'.

Vehicle Name *	Registration No.	Year
<b>Variant</b>		
[Dropdown menu with 'Renon' selected]		
<b>Icon Type</b>		
[Dropdown menu with 'Car' selected]		
Make	Model	Fuel Type
Renon	Alpha-NMC	Electric
Engine Capacity (in Litres/KW)	Fuel Tank Capacity(in Litres/Max. Voltage)	
1.612	50.4	

# Financier and Insurance Support



Vehicle Loan		
Loan Number	Engine Number	Chassis Number

Vehicle Insurance Details	
Insurance Company Name	Policy No.
IDV(Insured Declared Value)	Premium
Start Date 29/07/2024	End Date 29/07/2024

## BENEFITS

- Support for financiers and insurance
- Record parameters like loan number, insurance policy details
- Accounts for Financier and Insurers

# Battery Remote Management

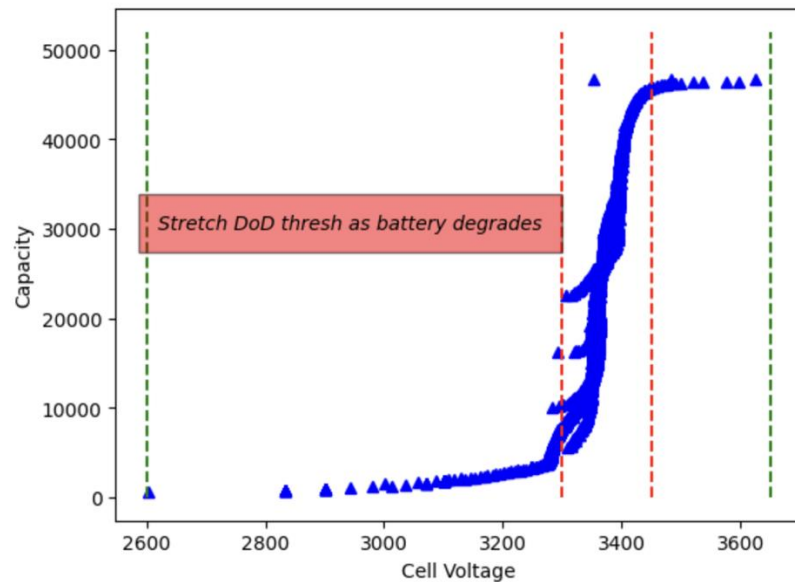


## BENEFITS

- 🔄 Change Key parameters on the BMS
- 🔄 Disable Charge/Discharge remotely

Name	Vehicle Type	Alarm	Time
[REDACTED]	Car	Charging Start	2024/07/28 10:19:42
[REDACTED]	Car	Charging Stop	2024/07/28 10:50:12
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[REDACTED]	Bike	Charging Stop	2024/07/28 14:03:37

# DoD Level Management with AI



## BENEFITS

- 🔄 Change DoD parameters remotely
- 🔄 Add extra capacity to the battery as the battery degrades and range decreases automatically
- 🔄 Save costs on manually changing DoD parameter

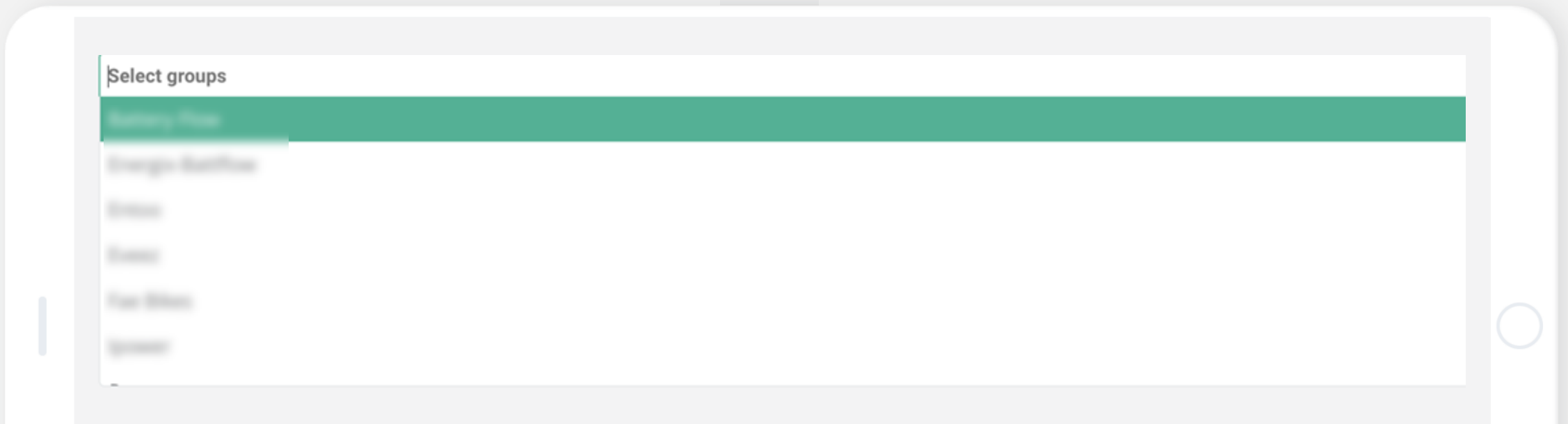


# Creation of Multiple Fleets



## BENEFITS

- Split your fleet based on city, customer
- Have visibility across fleets
- Have separate Visibility levels for different fleets and admin



# Role Based Access Control

A screenshot of a user registration form displayed on a tablet. The form includes fields for Username, Password, Email, Firstname, Lastname, Home Address, Office Address, Contact Number, and Emergent Contact Number. Below these fields is a 'Role' section with radio buttons for Driver, User (selected), Group Admin, Insurer, Club Admin, Financier, and Global Admin. At the bottom, there is a 'Permissions' section with three columns of checkboxes for various reports and features.

Username

Password

Email

Role

Driver User Group Admin Insurer Club Admin Financier Global Admin

Firstname

Lastname

Home Address

Office Address

Contact Number

Emergent Contact Number

Permissions

- ☐ Activity Report
- ☐ Advanced IO Report
- ☐ Battery Management
- ☐ Battery Operation Centre
- ☐ Charts Report
- ☐ Consignment Tracker
- ☐ Custom Summary(ITD)
- ☐ All Devices Details
- ☐ Driving Score Report
- ☐ Engine Details
- ☐ EV History
- ☐ Fuel History
- ☐ Fuel Summary

- ☐ AC Summary Report
- ☐ AIS Report
- ☐ Battery History
- ☐ Camera
- ☐ Coasting Report
- ☐ Crash Report
- ☐ Cutoff Management
- ☐ Distance Interval
- ☐ DTC
- ☐ ETA
- ☐ Fuel Alarms Report
- ☐ Fuel Level
- ☐ Geofence

- ☐ Advance Battery Control
- ☐ Alarms Report
- ☐ Battery Information
- ☐ 3D Chart
- ☐ Congestion Graph
- ☐ Custom Summary Report
- ☐ Daily Distance
- ☐ DPR Report
- ☐ Dynamic Summary
- ☐ Electric Vehicle
- ☐ Fuel Graph
- ☐ Fuel Report
- ☐ Geofence Issues

## BENEFITS

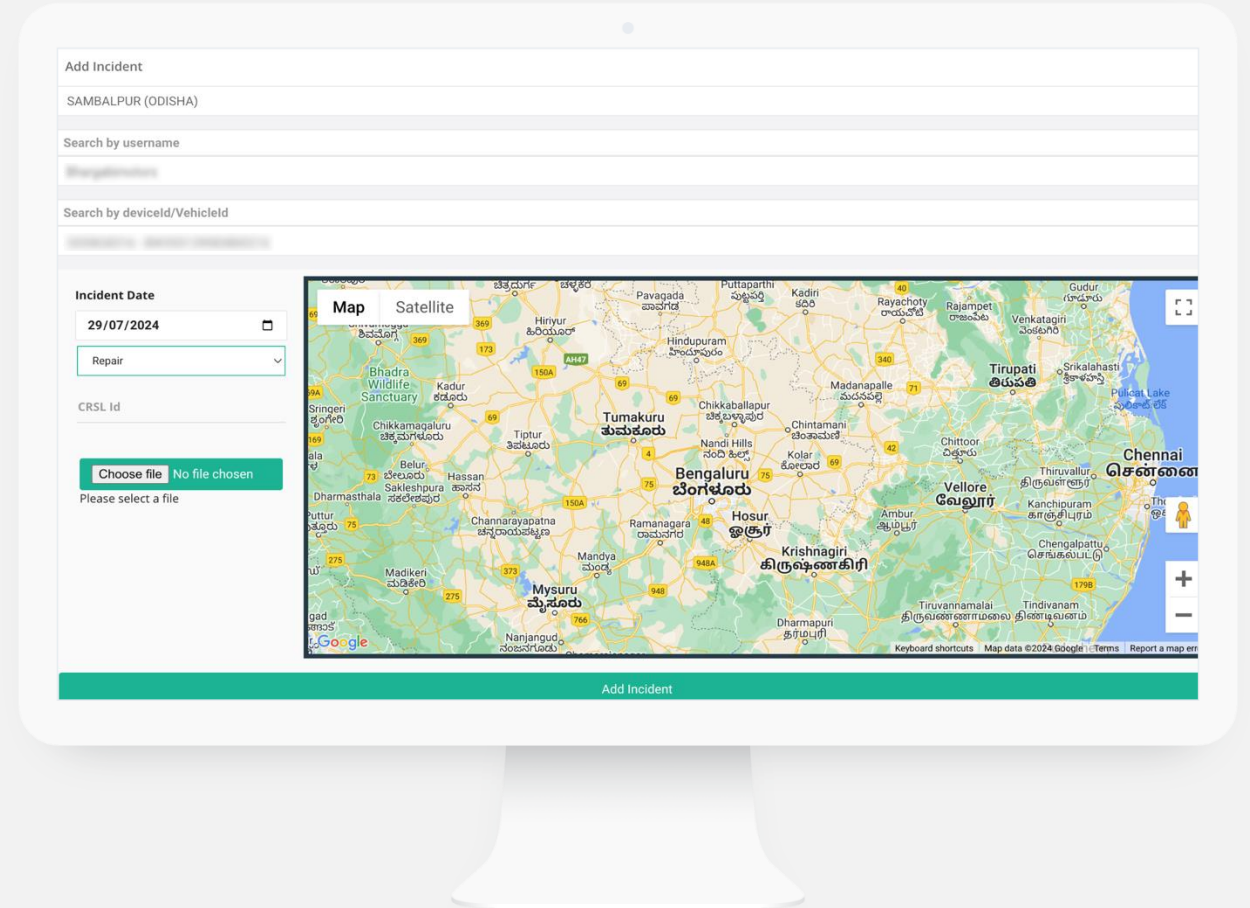
- Choose the views and rights for each user
- Ensure each admin sees only what they need

# Record Issue and Incident



## BENEFITS

- Track issues and repair work
- Keep records of maintenance and repair work on your fleet



# Maintenance Triggers



## BENEFITS

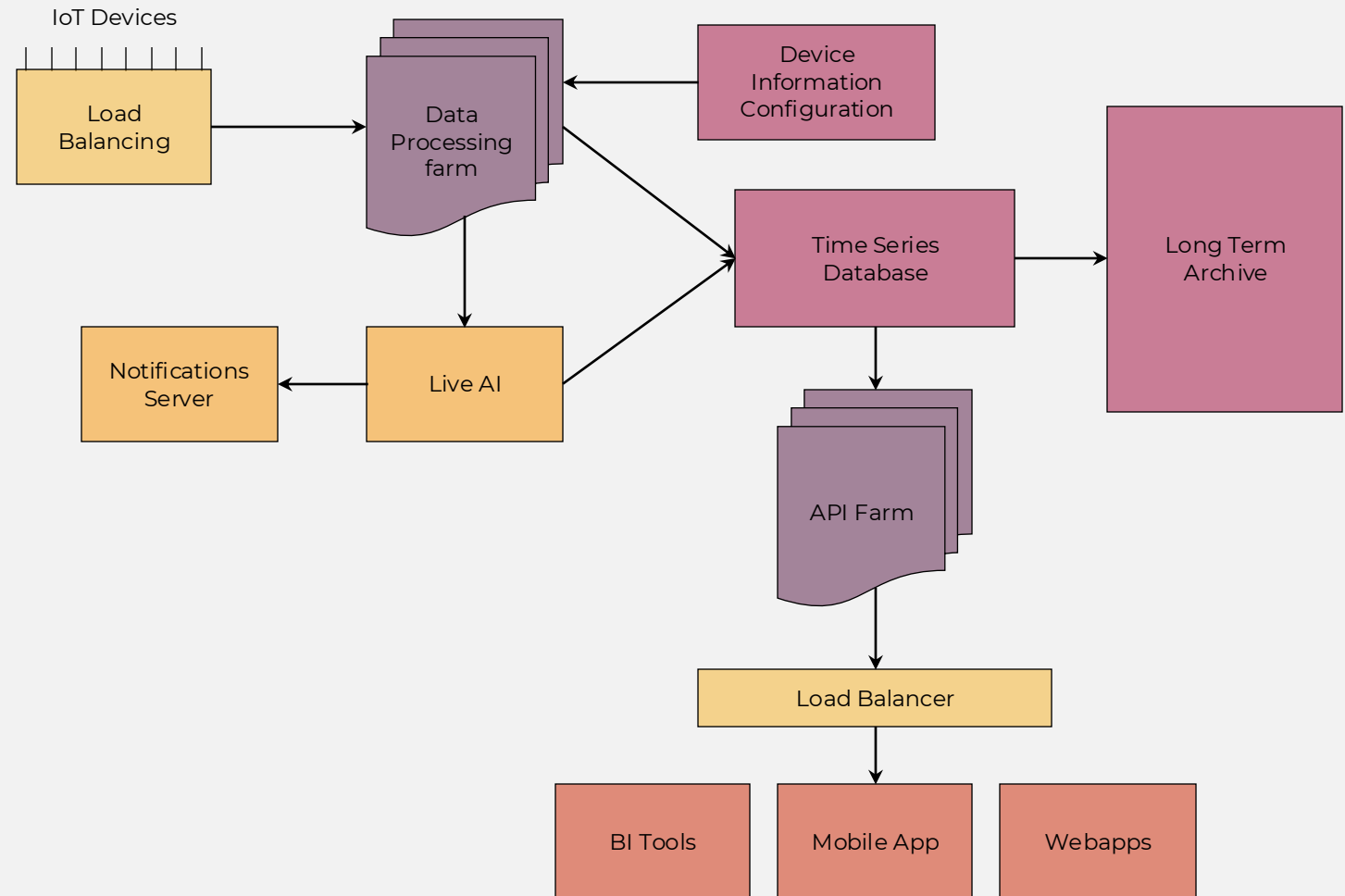
- 🕒 Keep track of Key Maintenance schedules
- 🕒 Trigger maintenance reminders based on time and distance travelled etc

A screenshot of a mobile application interface titled "Vehicle Maintenance Details". The interface is displayed on a tablet-like device with a white border and a light blue home indicator at the bottom. The app has a dark grey header bar with the title "Vehicle Maintenance Details" in white. Below the header, the form is organized into two columns. The left column contains a dropdown menu for "Service Interval Time", a text input for "Last Service ODO", another text input for "Last Service Cost", and a date input for "Last Service Date" which is pre-filled with "29/07/2024" and has a calendar icon. The right column contains a text input for "Service Interval Distance", a text input for "Current ODO reading", a text input for "Serviced @" with an @ symbol, and a date input for "Last PUC done" which is pre-filled with "29/07/2024" and has a calendar icon. The form uses a clean, modern design with light grey borders and a white background.

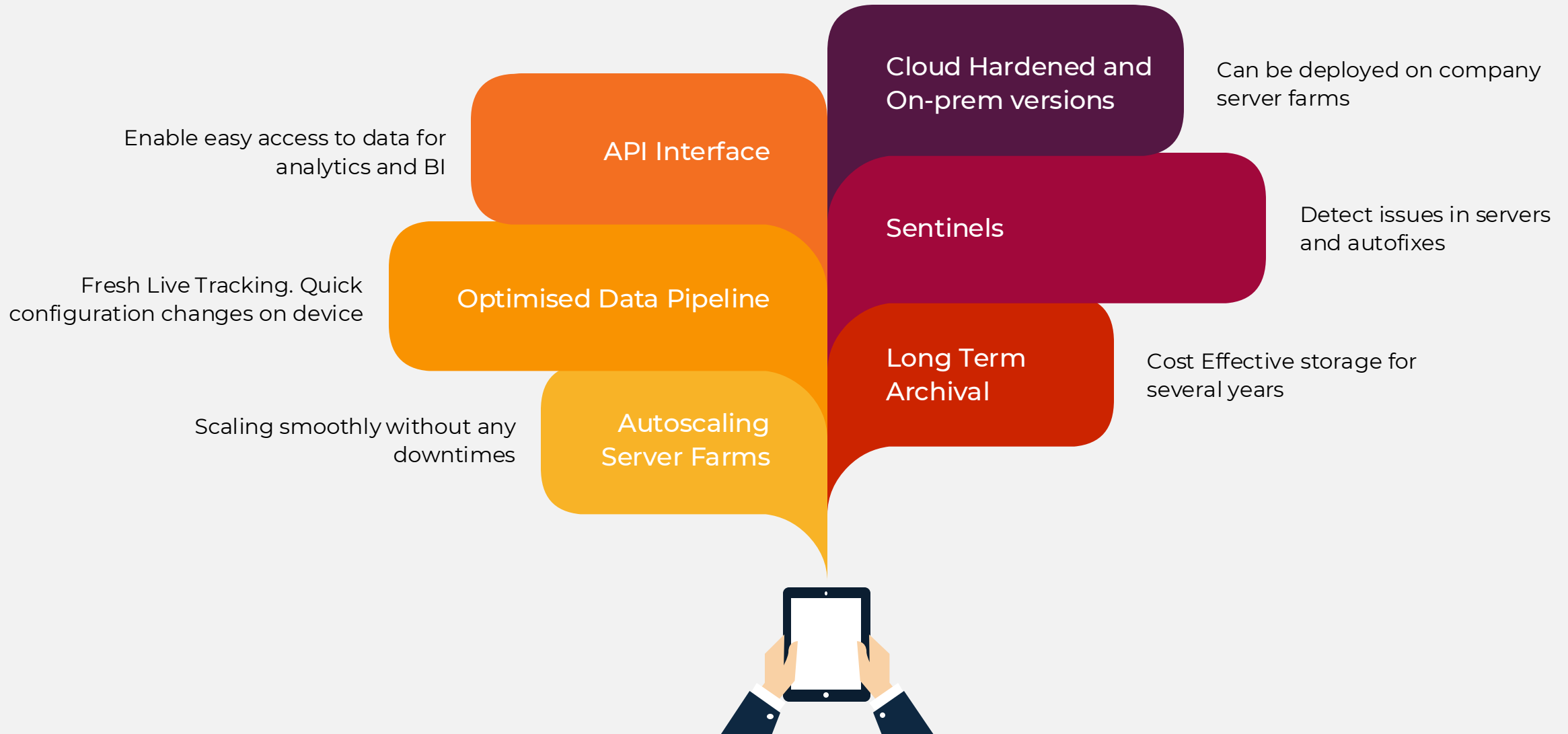
# Yatis IoT Framework



- The platform is lightweight, scalable, flexible and secure.
- Latency Minimisation and Responsive
- The Framework is designed to infinitely scalable and can manage > 1 million devices
- Fault tolerant storage and compute
- Available on cloud and on-prem



# Key Features and Benefits



# Solution Matrix



	Basic 2G	Basic 4G	Single CAN	UART/RS232	Dual CAN
	V0	V1	V2	V3	V4
GPS	Y	Y	Y	Y	Y
GSM	2G	4G	2G	4G	4G
Distance	Y	Y	Y	Y	Y
GeoFencing	Y	Y	Y	Y	Y
Battery Voltage	Y	Y	Y	Y	Y
FMS SW	Y	Y	Y	Y	Y
SoC Calculation	Voltage Based	Voltage Based	BMS	BMS	BMS
Battery Analytics/Faults	N	N	Y	Y	Y
Remote Lock Down	Y	Y	Y	Y	Y
Battery Parameter Control	N	N	Y	Y	Y
BMS Comm Protocol	N	N	CAN, UART, RS232, RS485	UART, RS232, RS485	CAN, RS232, RS485
US certified	N	N	N	N	Y



# Thank You!

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