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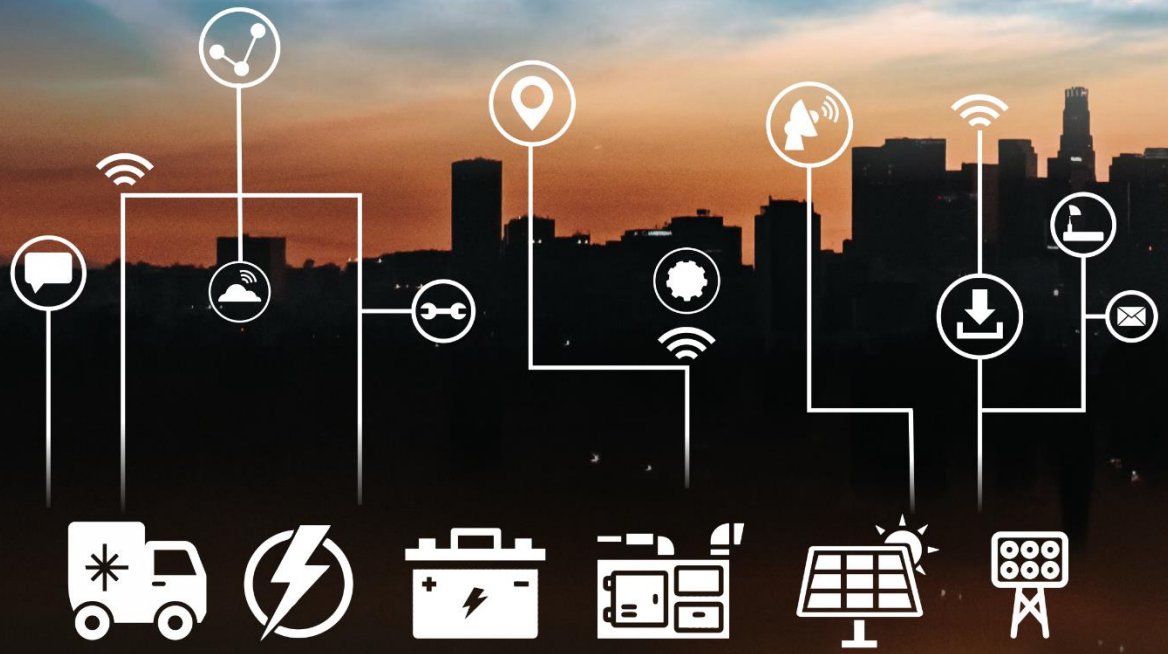
Transforming Businesses Through IT

INTERNET OF THINGS

OUR SOLUTIONS



Why Ethical Intelligent Technologies ?

TRACKING R & D COMPANY

Dedicated R & D team for Software & Hardware. Complete Software Source code & Hardware Ownership

SAFE & SECURE TECHNOLOGY

Robust Java/J2EE Enterprise Technology

CLOUD COMPUTING

State of the Art Cloud computing with 99.99% Uptime Availability

CUSTOMIZATION & ERP INTEGRATION

With a strong team of Business Analysts/Technical Architects and source code ownership, we can customize the software as per client's needs.

WELL ESTABLISHED

Well Established 100+ Clients including top premium clients using our applications.

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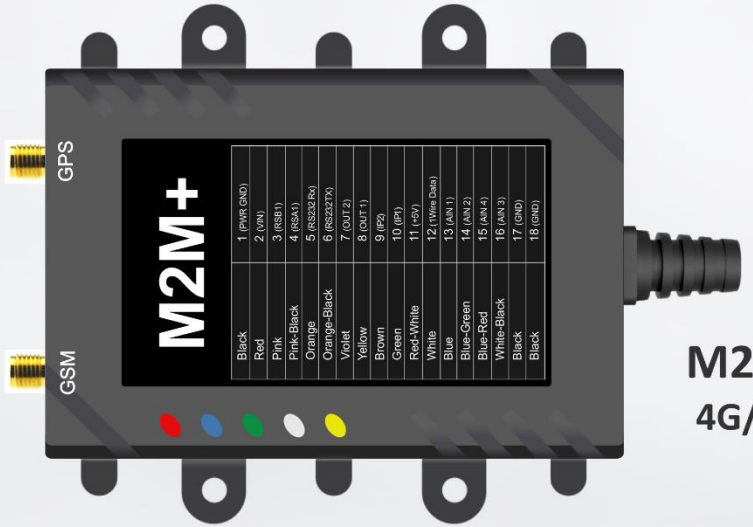
Our IOT Framework

Software

Hardware



M2M+
4G/LTE

Supported wireless feature

Iridium Satellite Module - RS232 Integration

Lora Module RS232 Integration

NB-IOT Module RS232 Integration

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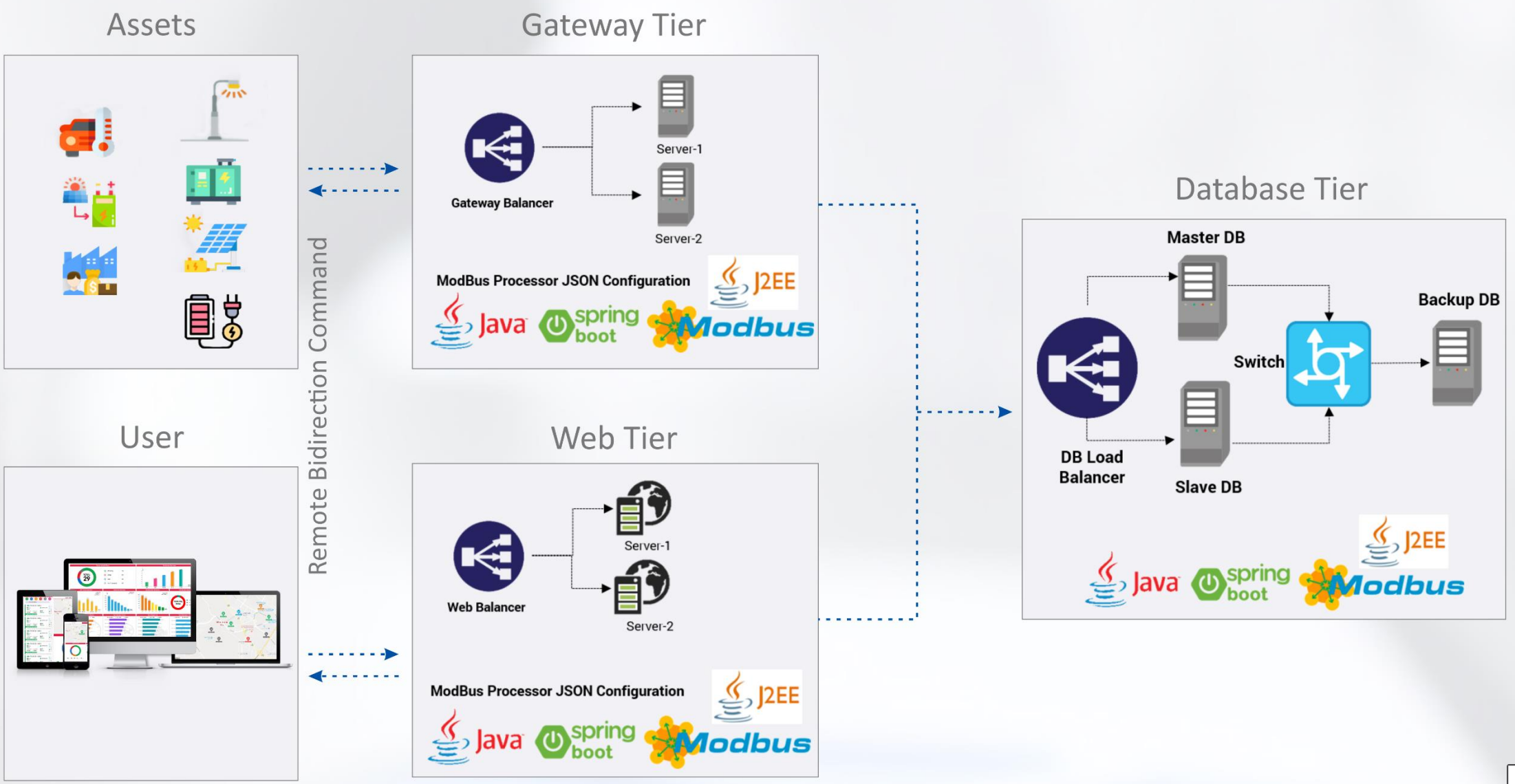
IOT Framework : Software



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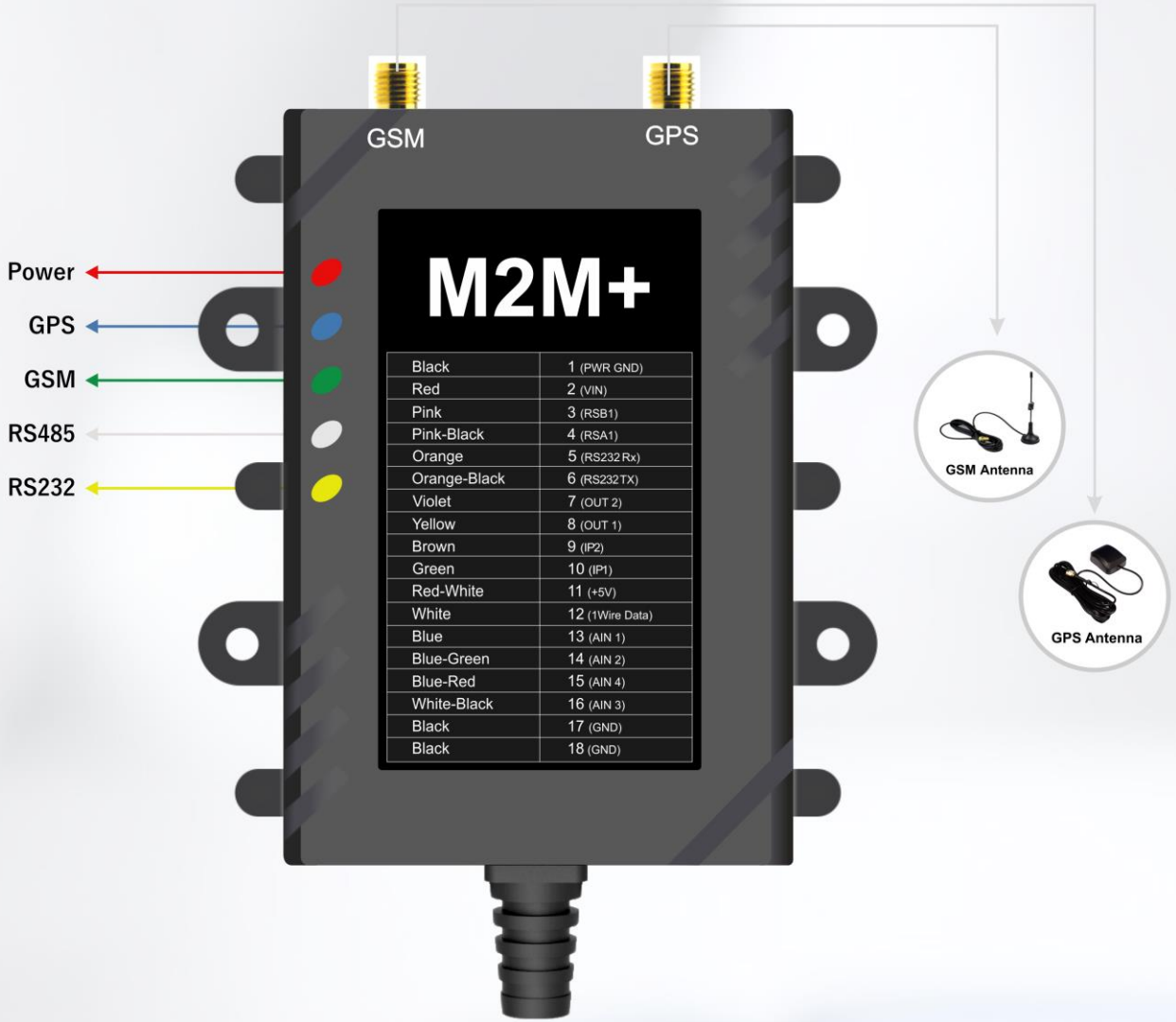
IOT Framework : Hardware



Software Feautures

- TCP IP
- GPRS
- FOTA
- SMS
- 4G/NB IOT
- FALL BACK TO 2G
- IPV4/IPV6 PROTOCOL
- MOTT

Hardware Feautures

- ModBus Protocol
- RS485
- RS232
- 1-Wire
- Digital I/P
- Digital O/P
- Analog I/P
- GPS
- External Antenna
- Wide Range Power I/P

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Technical Specification

MCU

Core	ARM Cortex 32-Bit 48MHz

MEMORY FOR OFFILE LOGS

Type	NAND Flash
Size	16Mbit / 10000 Logs

BLUETOOTH

Baud Rate	2400 to 115200 Configurable
Hardware Handshake	No

RS-232

Baud Rate	2400 to 115200 Configurable
Hardware Handshake	No

ACCELEROMETER

Measurement Range	+/-2g to +/- 16g
Resolution	16Bit

GYROSCOPE

Measurement Range	+/-2g to +/- 16g
Resolution	16Bit

CELLULAR

GSM & GPS MODULE	EG25-G Worldwide LTE Cat 4, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
2G Bands	GSM: B2/B3/B5/B8
3G Bands	UMTS: B1/B2/B4/B5/B6/B8/B19
4G Bands	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41
Data Transfer	**LTE:** LTE FDD: Max 150Mbps (DL)/Max 50Mbps (UL) LTE TDD: Max 130Mbps (DL)/Max 30Mbps (UL) **UMTS:** DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.76Mbps (UL) WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL) **GSM:** EDGE: Max 296Kbps (DL)/Max 236.8Kbps (UL) GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)
Protocols	Protocols: TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/SMTP/CMUX*/HTTPS*/MMS*/FTPS*/SMTPS*/SSL*/FILE*

GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS (Optional)
Receiver	
Tracking Sensitivity	-147 dBm
Accuracy	< 4meters
Hot Start	< 2s
Warm Start	< 28s
Cold Start	< 35s

ELECTRICAL

Input Voltage	6V to 30VDC
Protections	Reverse Battery, Transient Protection, Built-In PTC Fuse, Under Voltage lockout
ESD Protection	4kV
Power Consumption	Less than 1 watt (In High- Performance mode) Less than 0.25 watt (In Power-Saving mode)

INTERNAL BATTERY

Type	Li-ion Rechargeable
Capacity	650mAh @ 3.7V
Protection	Built in to battery pack

ENVIRONMENTAL

Operating Temperature	-40 to 85 Deg C

MECHANICAL

Dimensions	X X X mm
Box Material	ABS
Ingress Protection	Ip64
Weight	250 grams (Approx.)

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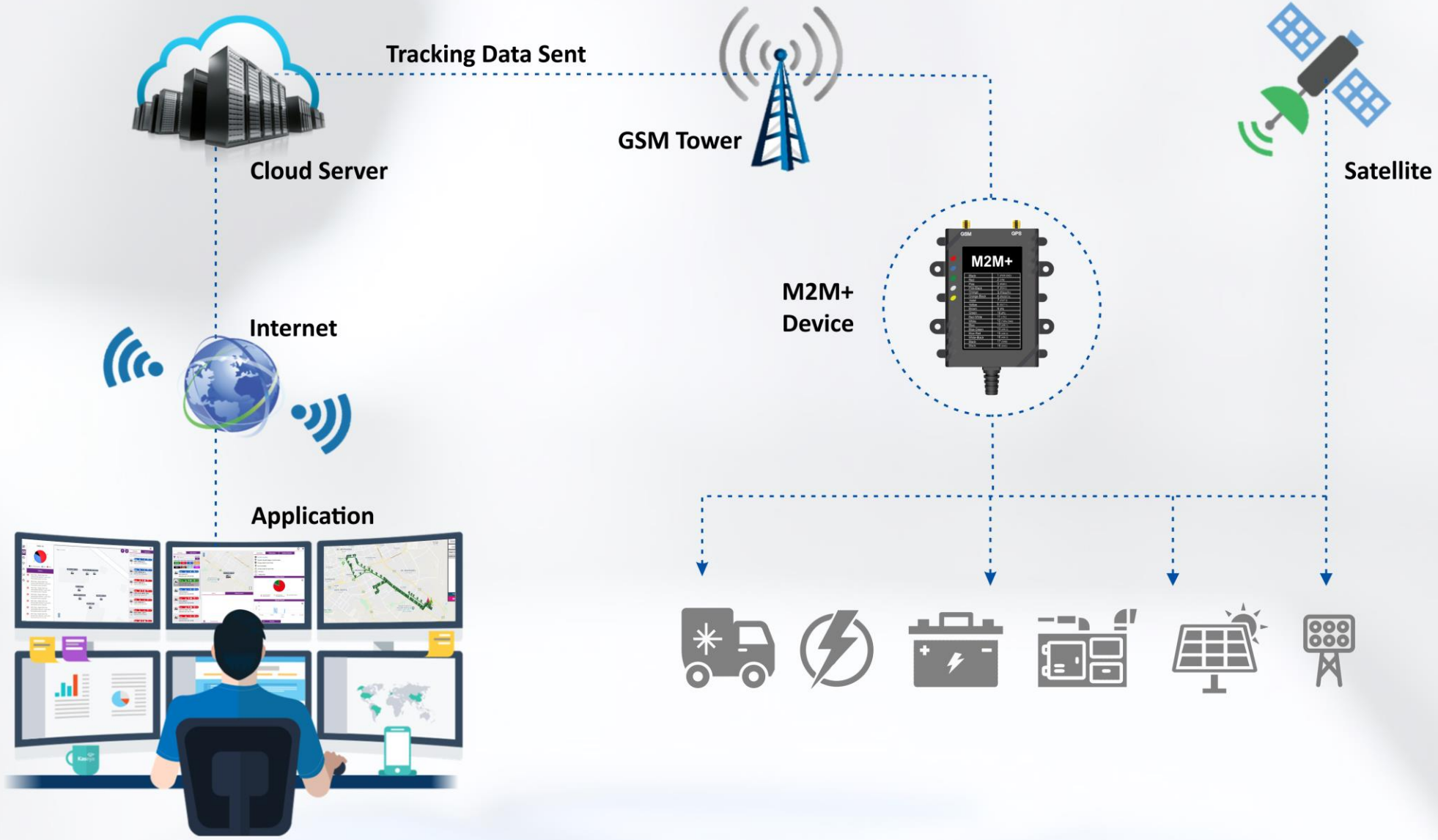
How It Works



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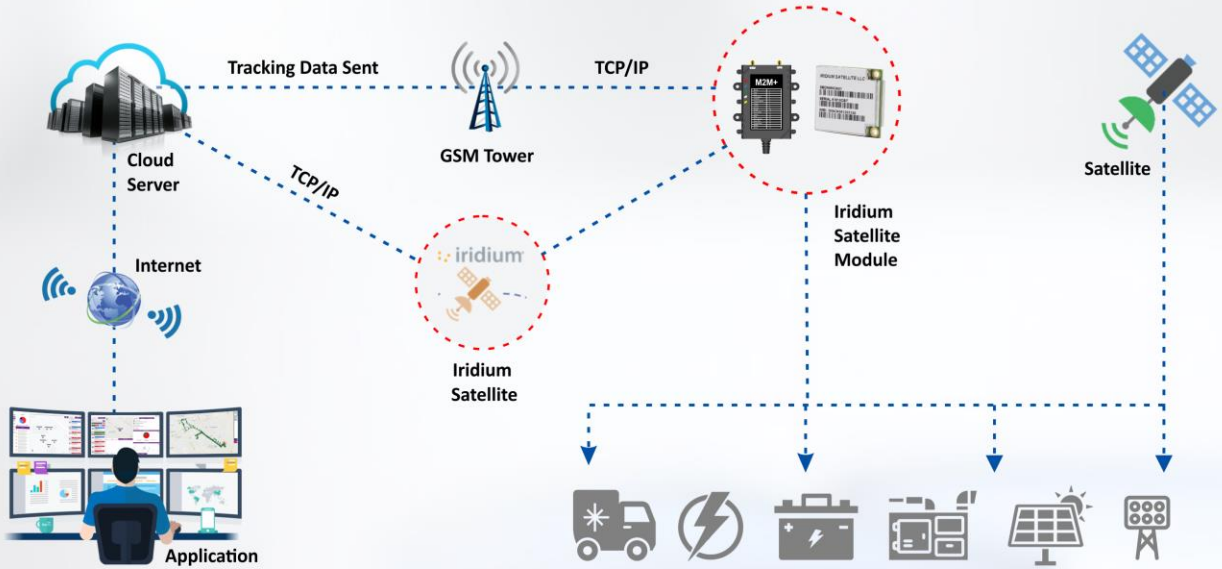
Iridium Satellite Module - RS232 Integration

- No need to install any external antenna like LoRa & NB-IoT
- Satellite communication does not require any physical network installation or maintenance



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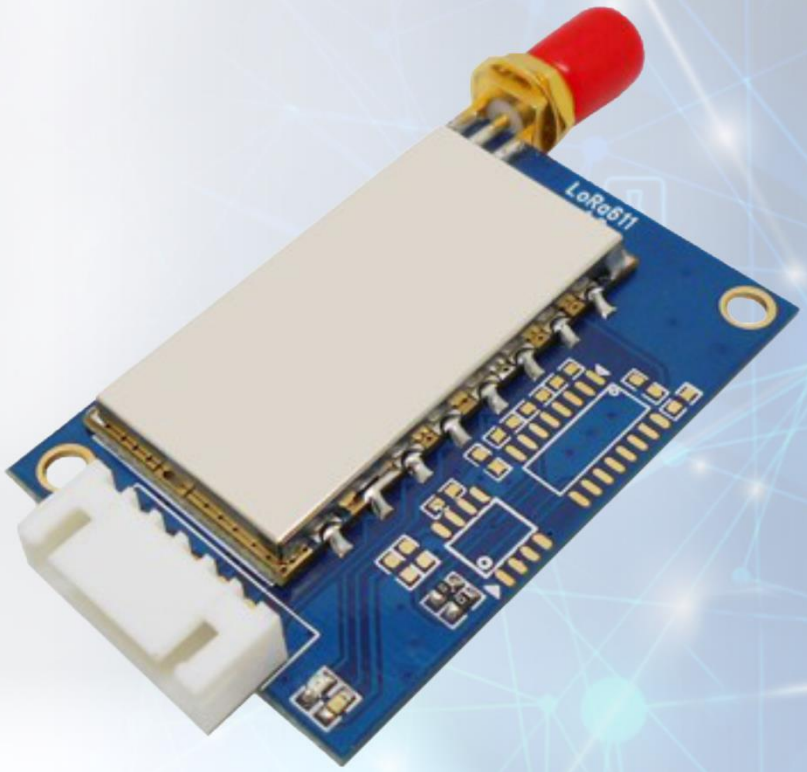
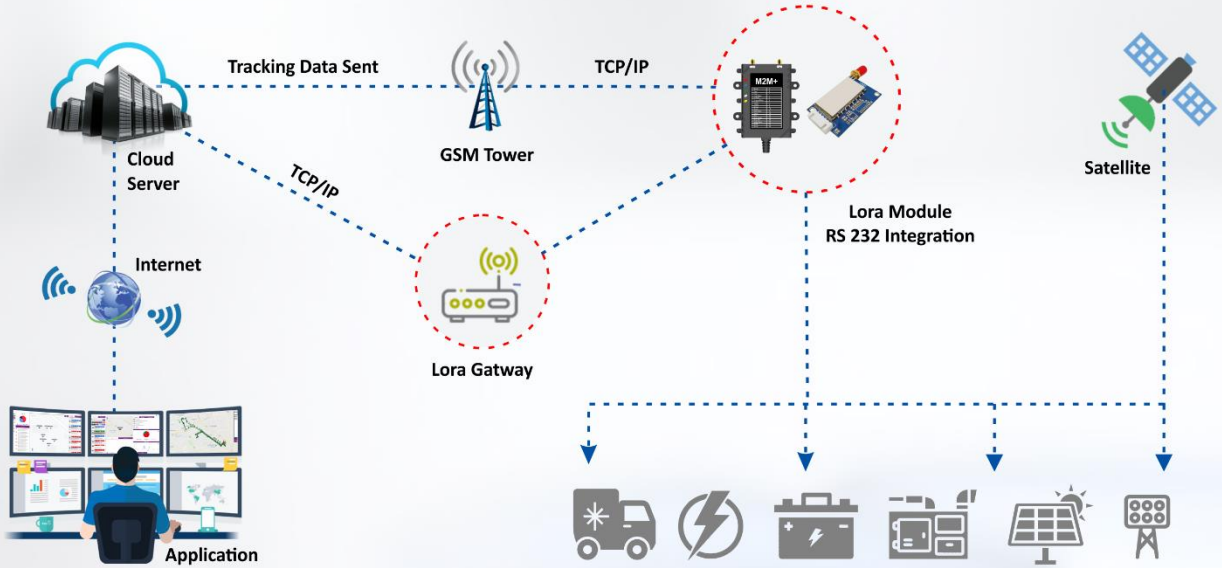
Lora Module - RS232 Integration

- Transmission distance in open area up to 5000 meters @ 91bps
- 433/470/868/915 Mhz (Customizable)
- 40 channels
- LoRa modulation
- Interface : TTL/RS232/RS485





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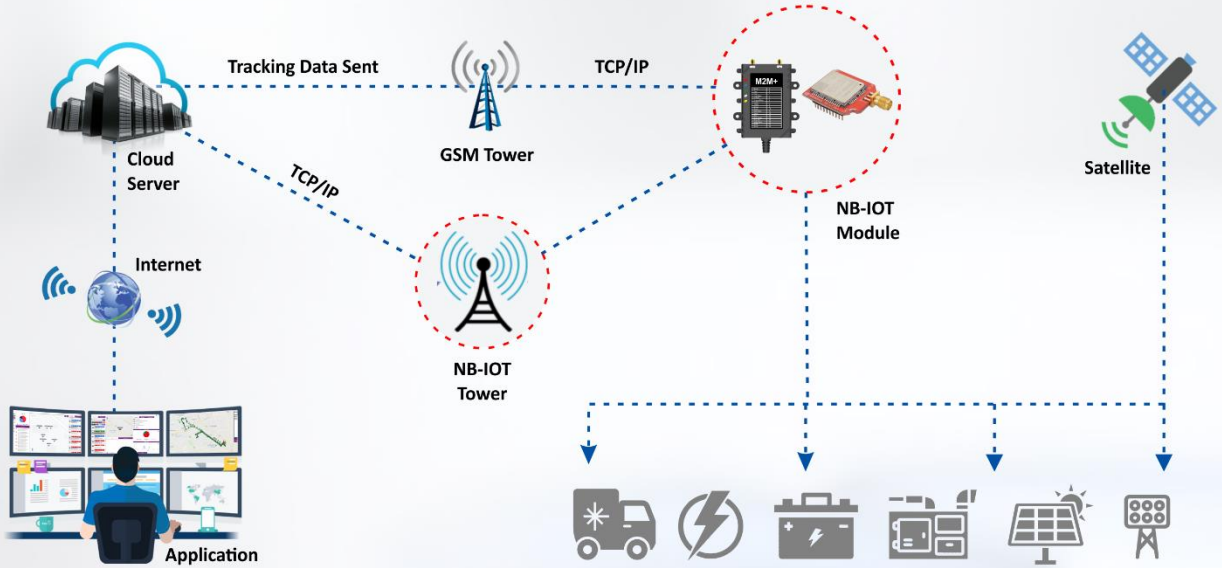
NB-IOT Module - RS232 Integration

- Secure reliable industry standards based
- Extended long range coverage and deep penetration indoors & underground
- Optimized for low power consumption
- Integrates into cellular system easy deployment



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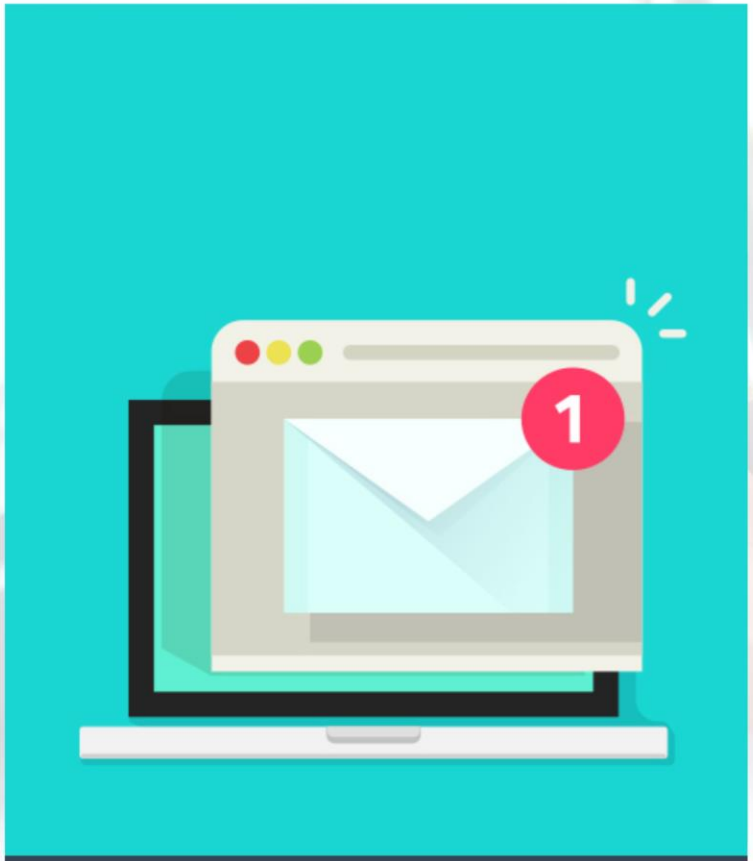
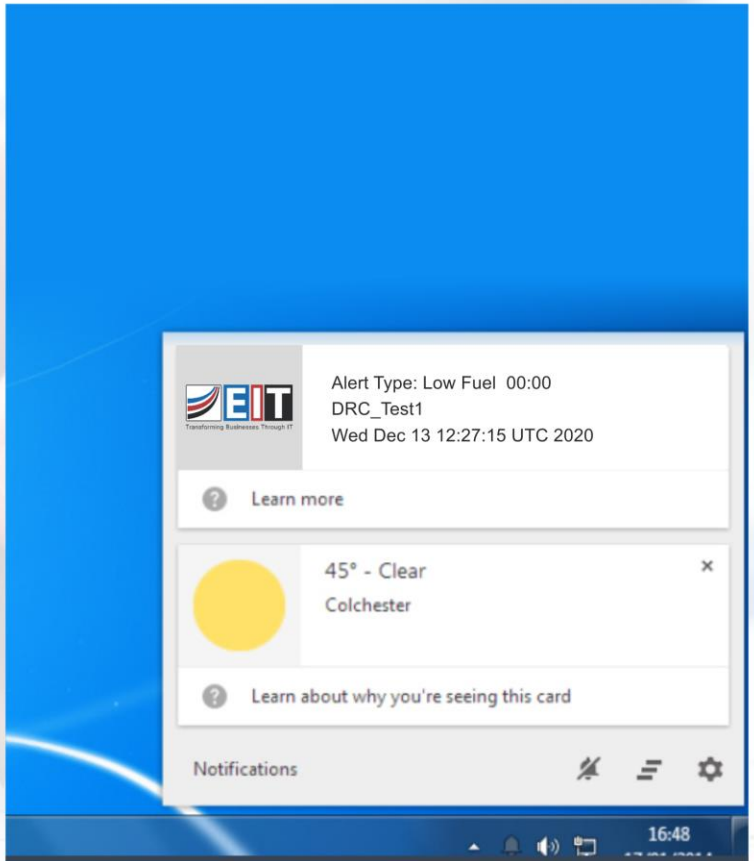
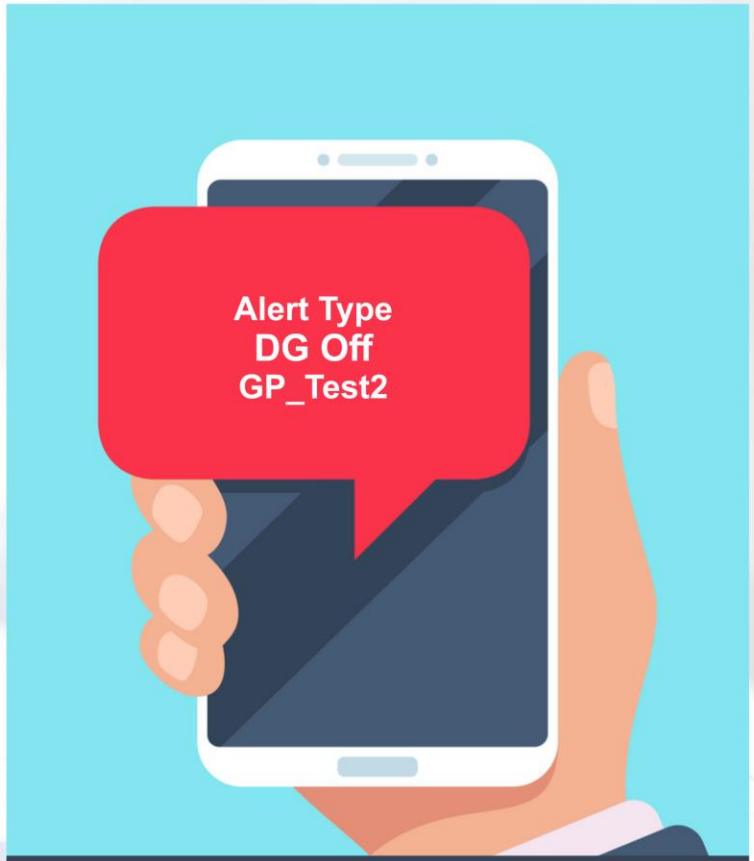
Alert Notifications



E-Mail Alert



Desktop Notification Alert



Push Notification Alert

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Mobile App For Vehicle Tracking - Android/IOS

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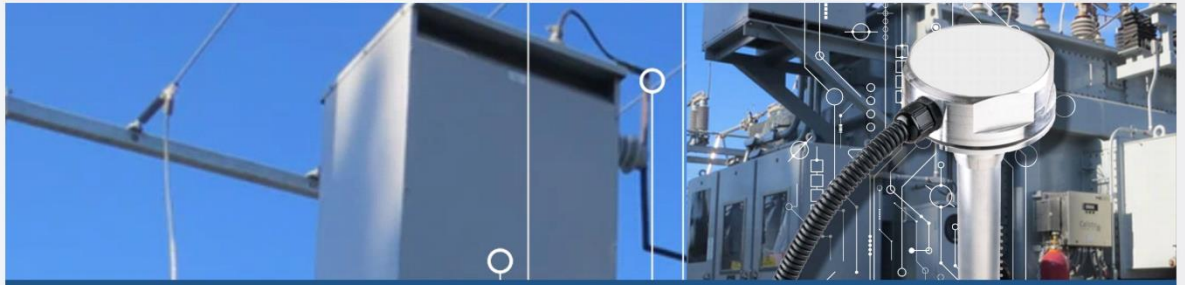
Our Implementation

STREET LIGHT

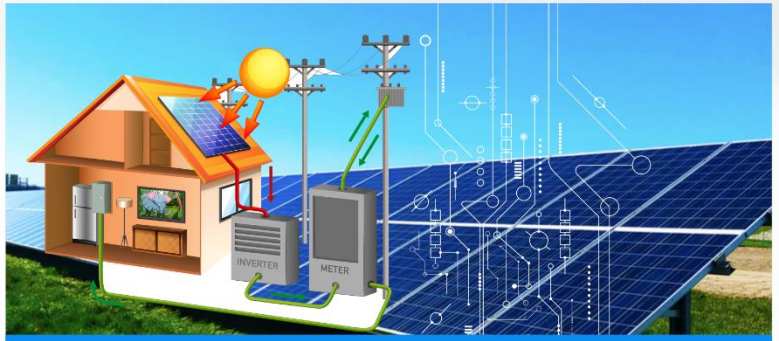


FUEL SENSOR FOR DG

IOT BASED TEMPERATURE TRACKING SOLUTION

ON-GRID / OFF-GRID SOLAR REMOTE MONITORING SOLUTION

PREPAID ENERGY



SOLAR-INVERTER TYPE

DG MONITORING AND CONTROL

STREET LIGHT

Solution is to monitor and control street lights

PAIN POINTS

MANUALLY
TURN ON AND OFF
STREET LIGHTS BY MAN POWER

SOLUTIONS

AUTOMATIC / SCHEDULED
TURN ON AND OFF
STREET LIGHTS BY IOT SOLUTIONS

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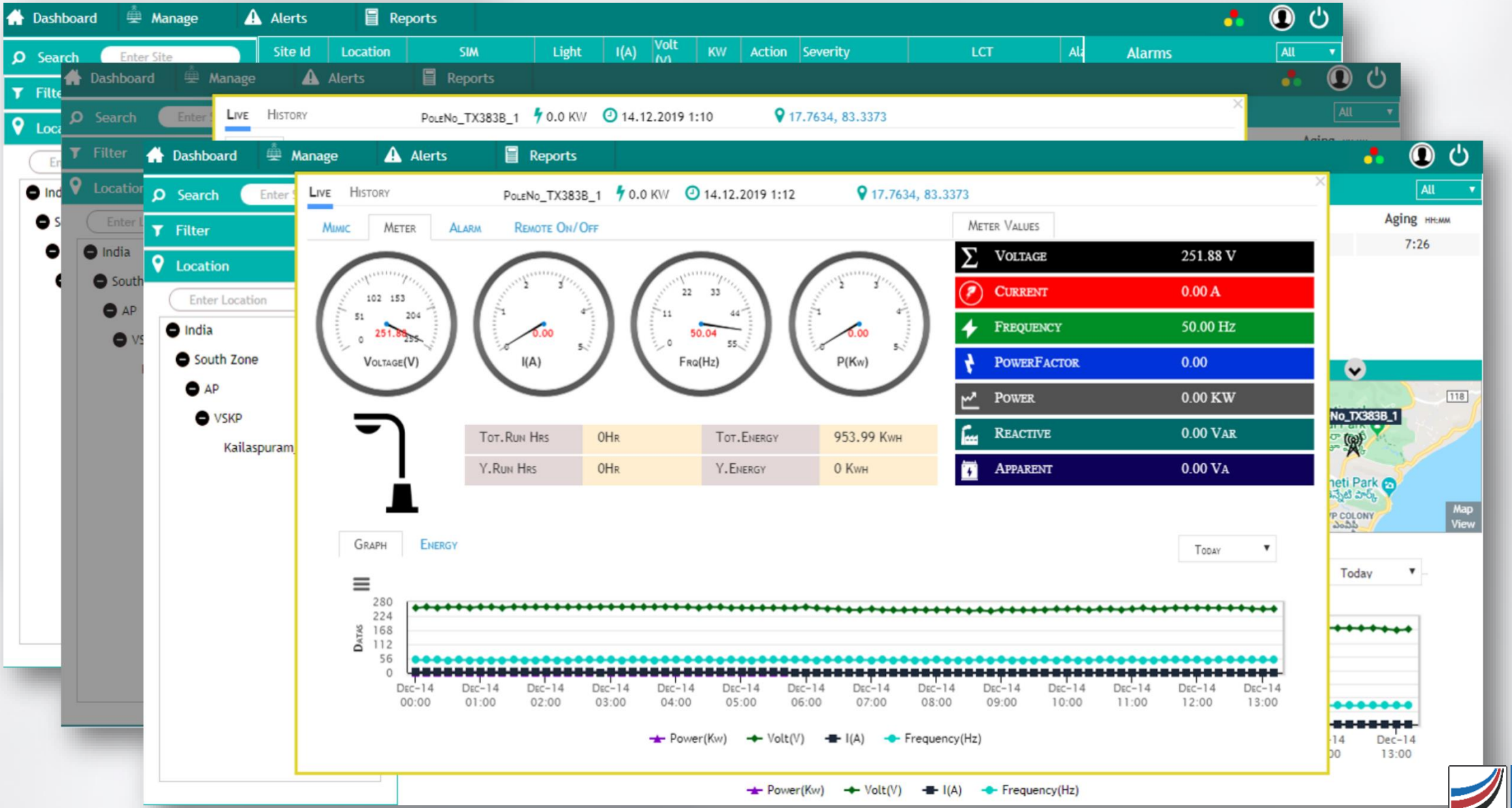
Application Screenshots



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FUEL SENSOR FOR DG

To monitor fuel in DG where Fuel Filling, Fuel Theft Detection and Fuel Consumption are the major key notes of this application

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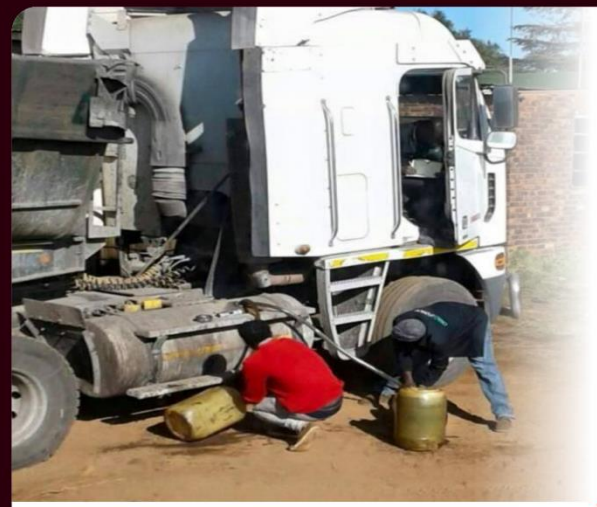
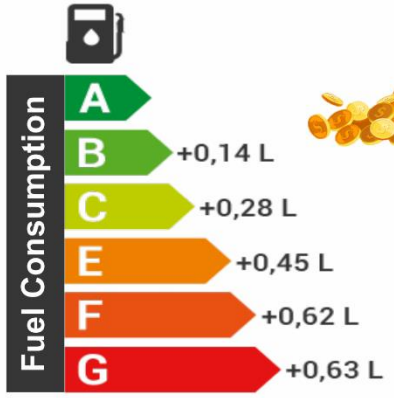
PAIN POINTS



Fuel Theft

Fuel Filling



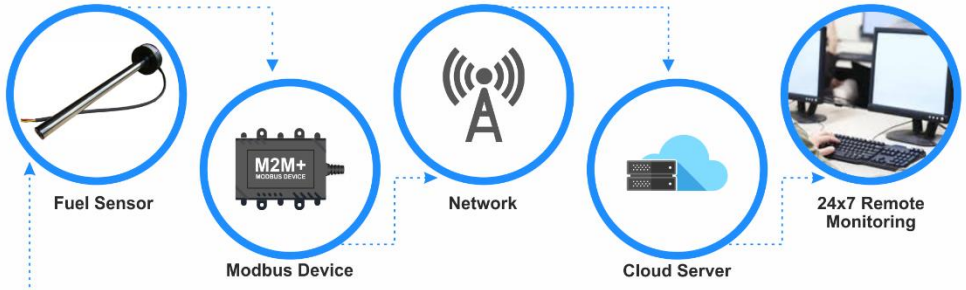
SOLUTIONS

Fuel Theft
Alert & Report

Fuel Filling
Alert & Report

Fuel Consumption
Alert & Report

Low Fuel
Alert & Report



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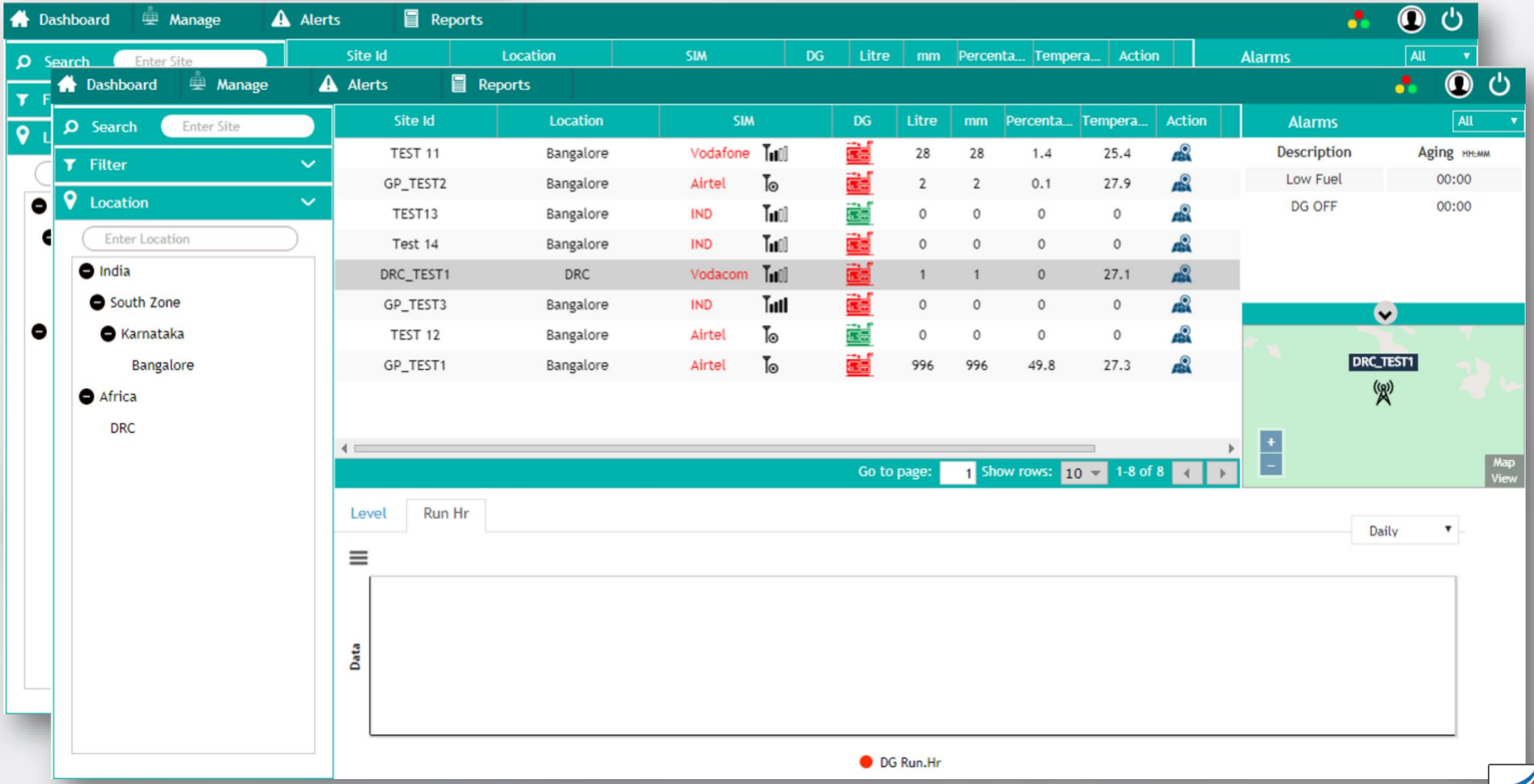
Application Screenshots



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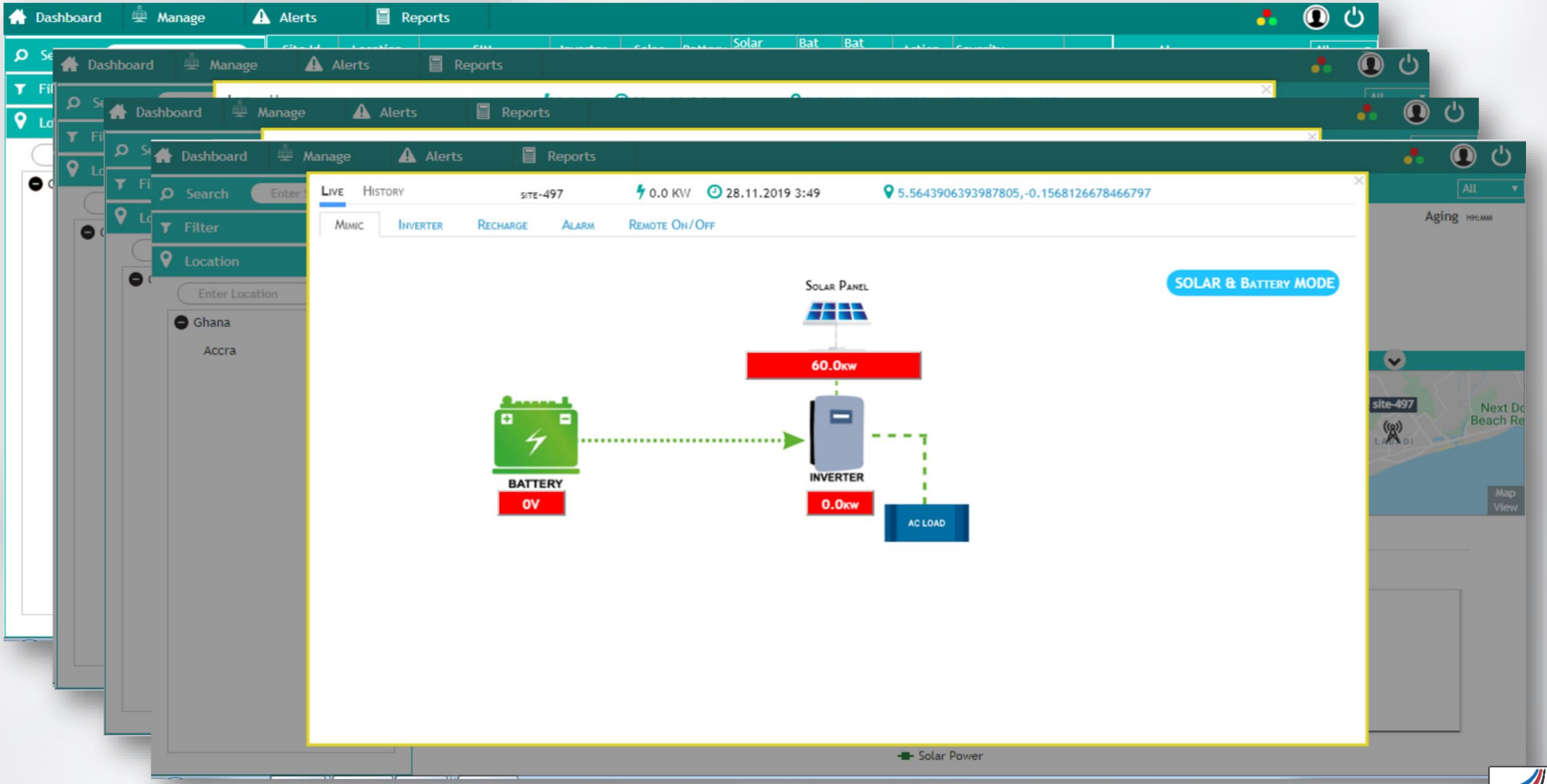
PREPAID ENERGY

Prepaid Energy: Administrator can monitor the various parameters of Battery, Inverter & Solar. When the energy reaches the limit inverter will be turned OFF automatically. It will be turned it ON back once recharged by the user.

Application Screenshots



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IOT BASED TEMPERATURE TRACKING SOLUTION

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PAIN POINTS

SOLUTIONS

- **Temperature** Alert & Report
- **GPS Tracking** Alert & Report
- **Driver App** Alert & Report
- **Camera** Alert & Report
- **Wireless** Alert & Report
- **Engine Dlagnostics** Alert & Report

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How It Works

Cloud Server

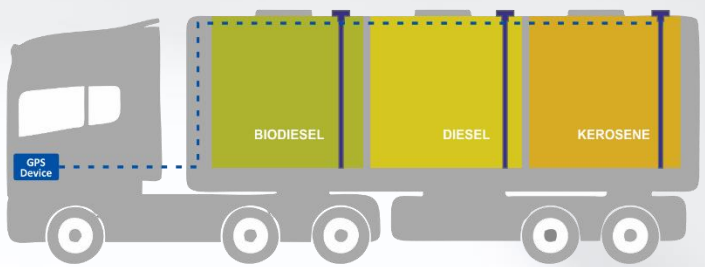
Tracking Data Sent

Cell Tower

Satellite

Internet

Application



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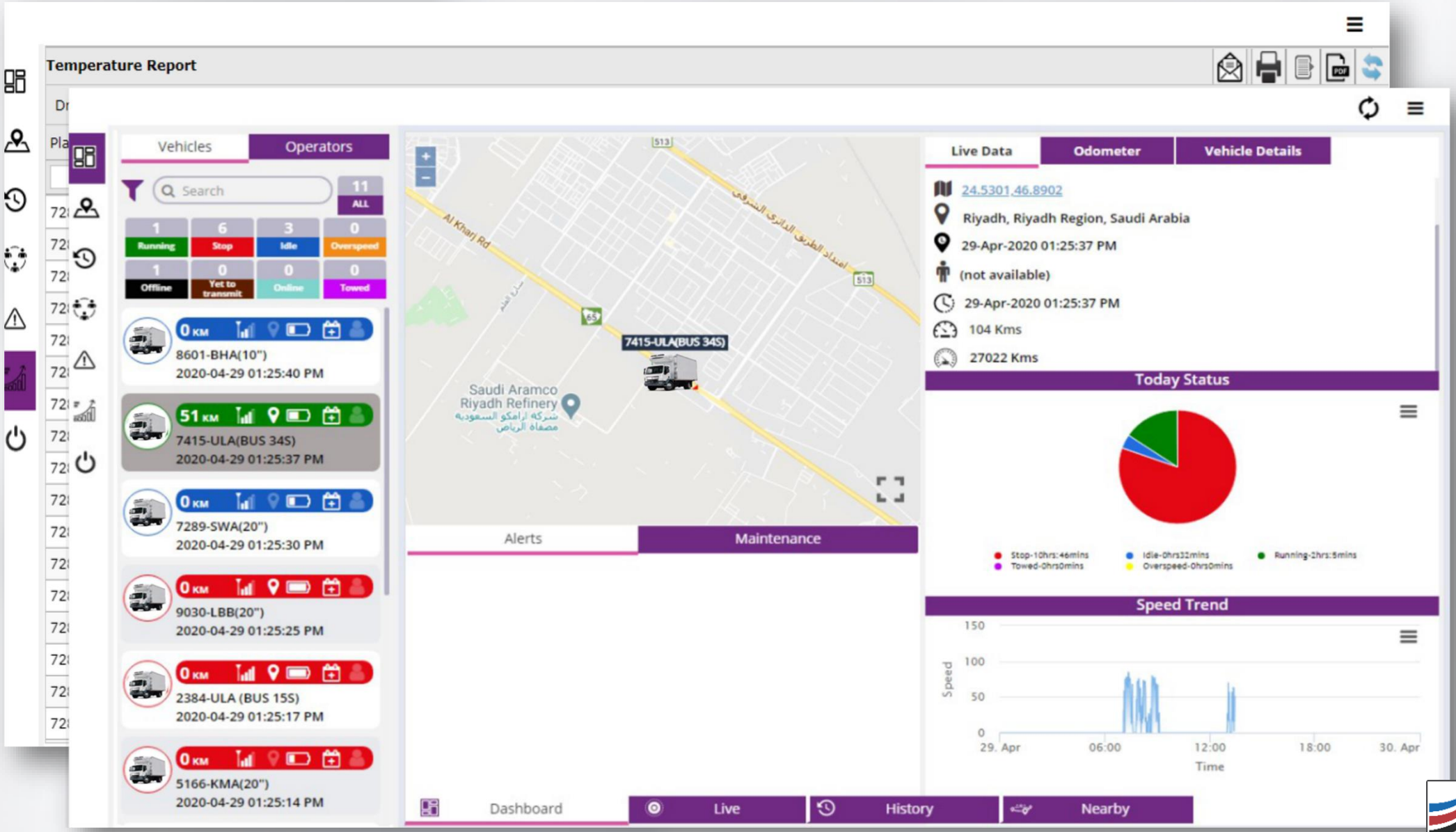
Application Screenshots



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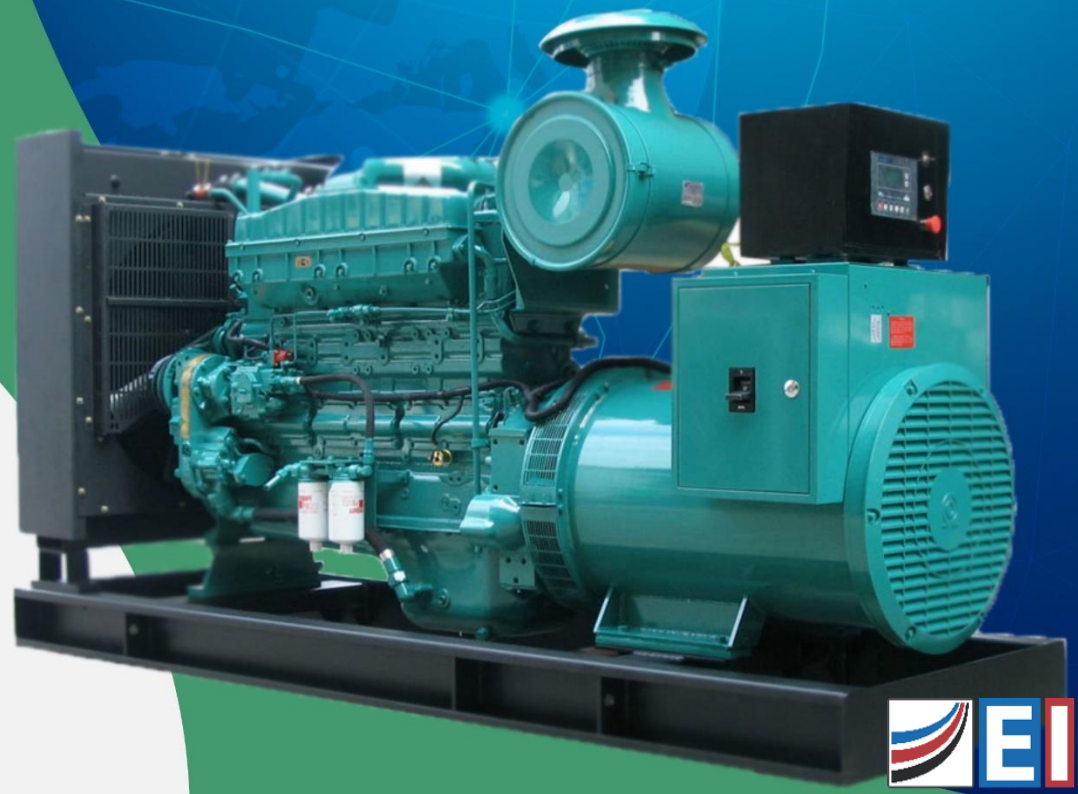
DG MONITORING AND CONTROL

To Monitor various **DG parameters and Lock/Turn OFF DG and Unlock** the control panel via remote



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PAIN POINTS

SOLUTIONS

- **Low Fuel** Alert & Report
- **Rental Buy** Alert & Report
- **Over head** Alert & Report
- **Fuel Theft** Alert & Report
- **Fuel Filing** Alert & Report
- **Various Engine Parameters** Alert & Report

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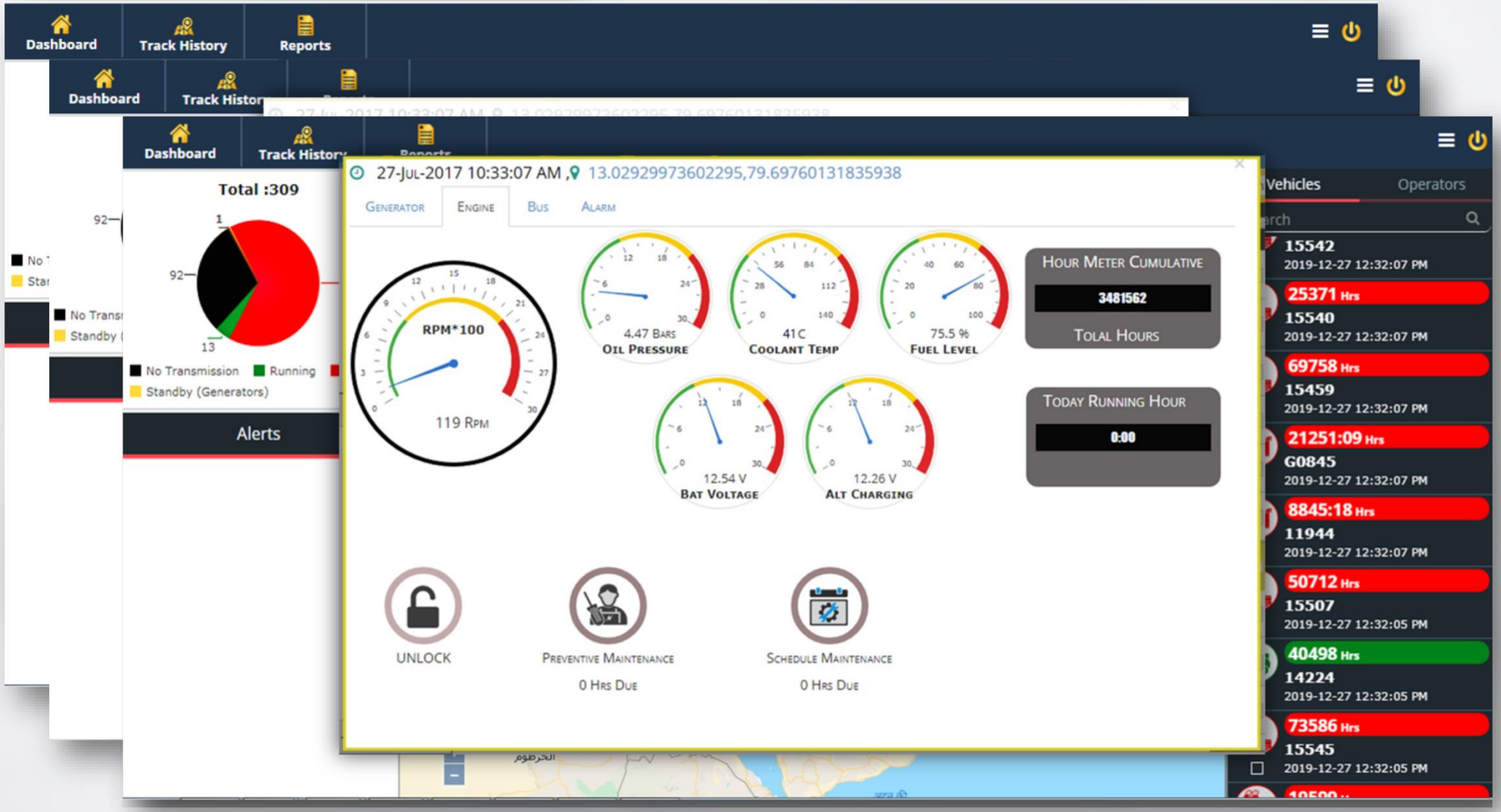
Application Screenshots



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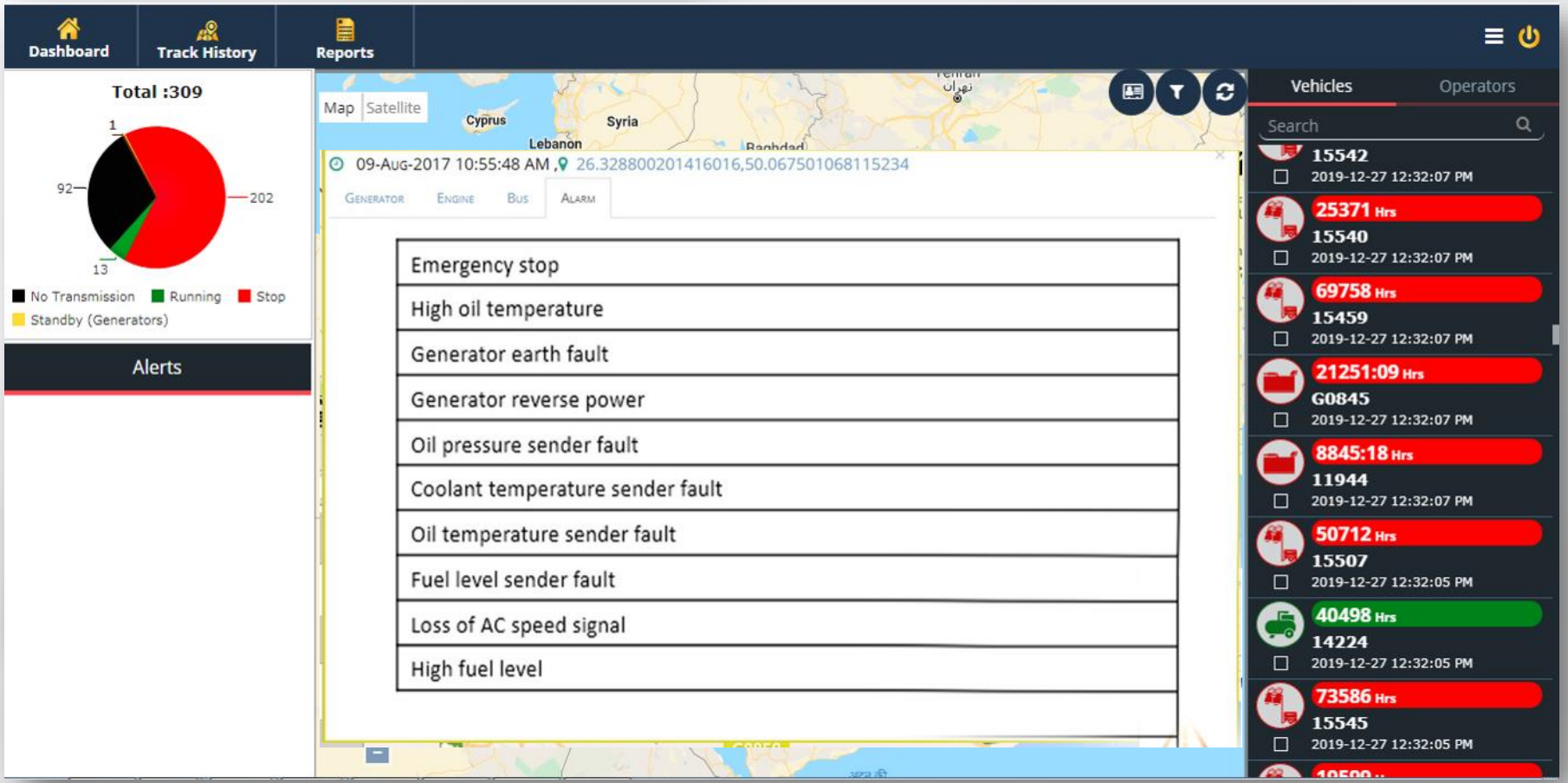
Generator Alarms



LIST OF ALARMS

- Emergency Stop
- High Oil Temperature
- Generator Earth Fault
- Generator Reverse Power
- Air Flap
- Oil Pressure Sender Fault
- And more….

Push Notification

E-Mail Alert

Desktop Notification Alert

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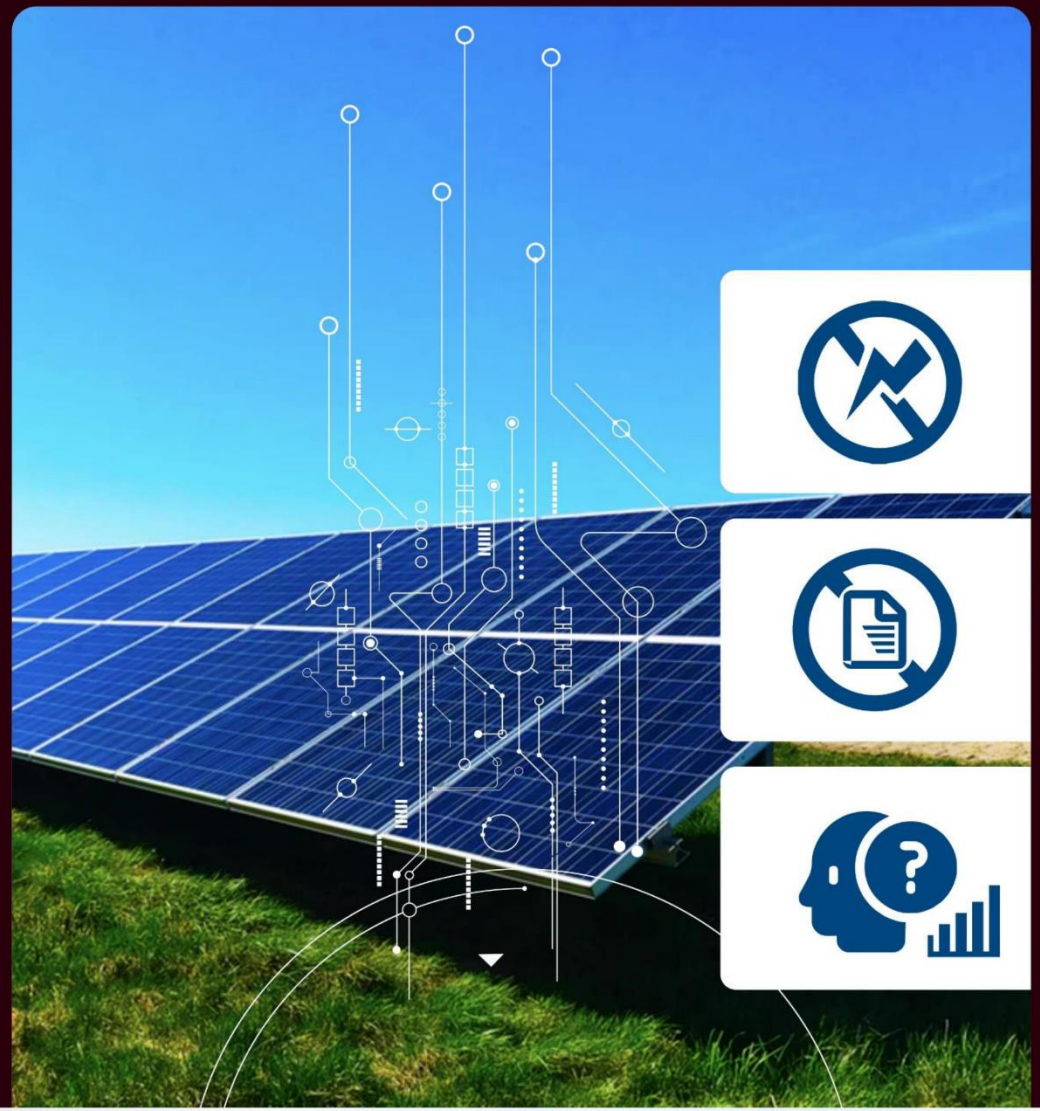
ON-GRID / OFF-GRID SOLAR REMOTE MONITORING SOLUTION

PAIN POINTS



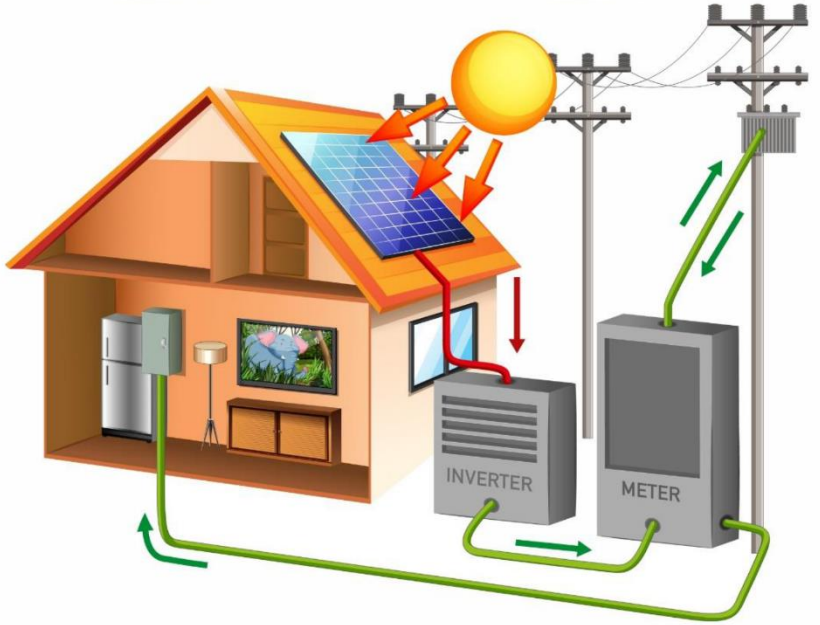
SOLUTIONS

Battery
Alert & Report

Storage
Alert & Report

Energy
Generate
Alert & Report

Analysis
Alert & Report



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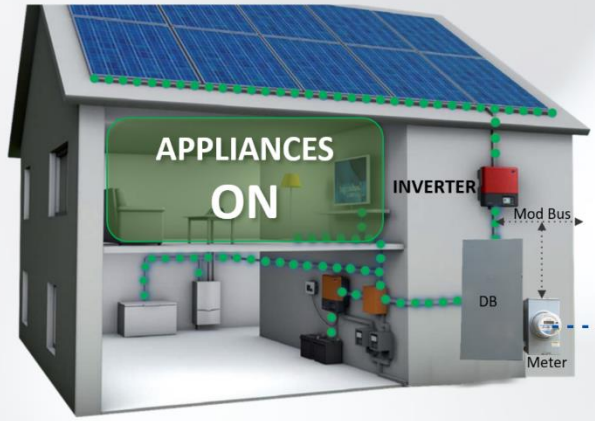
How It Works

Cell Tower

Tracking Data Sent

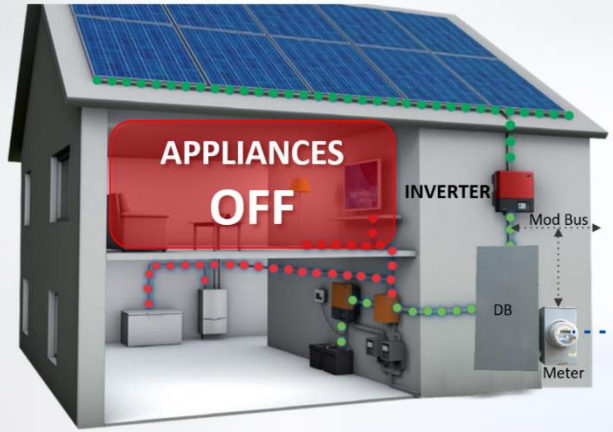
Cloud Server



Tracking
Data Sent 24/7

Internet

M2M+ Device



Government
Electrical Poll AC Supply

Application

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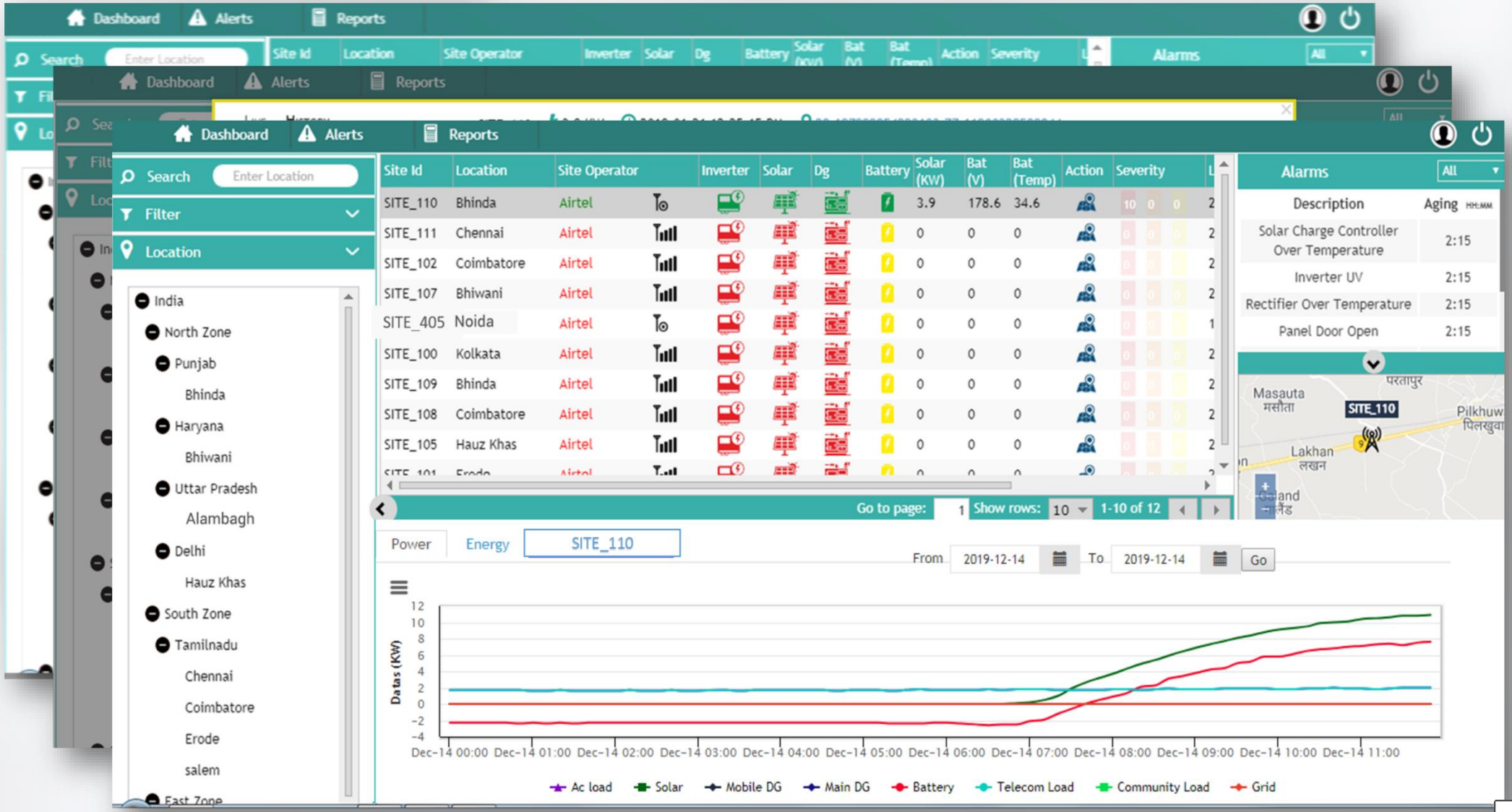
Application Screenshots



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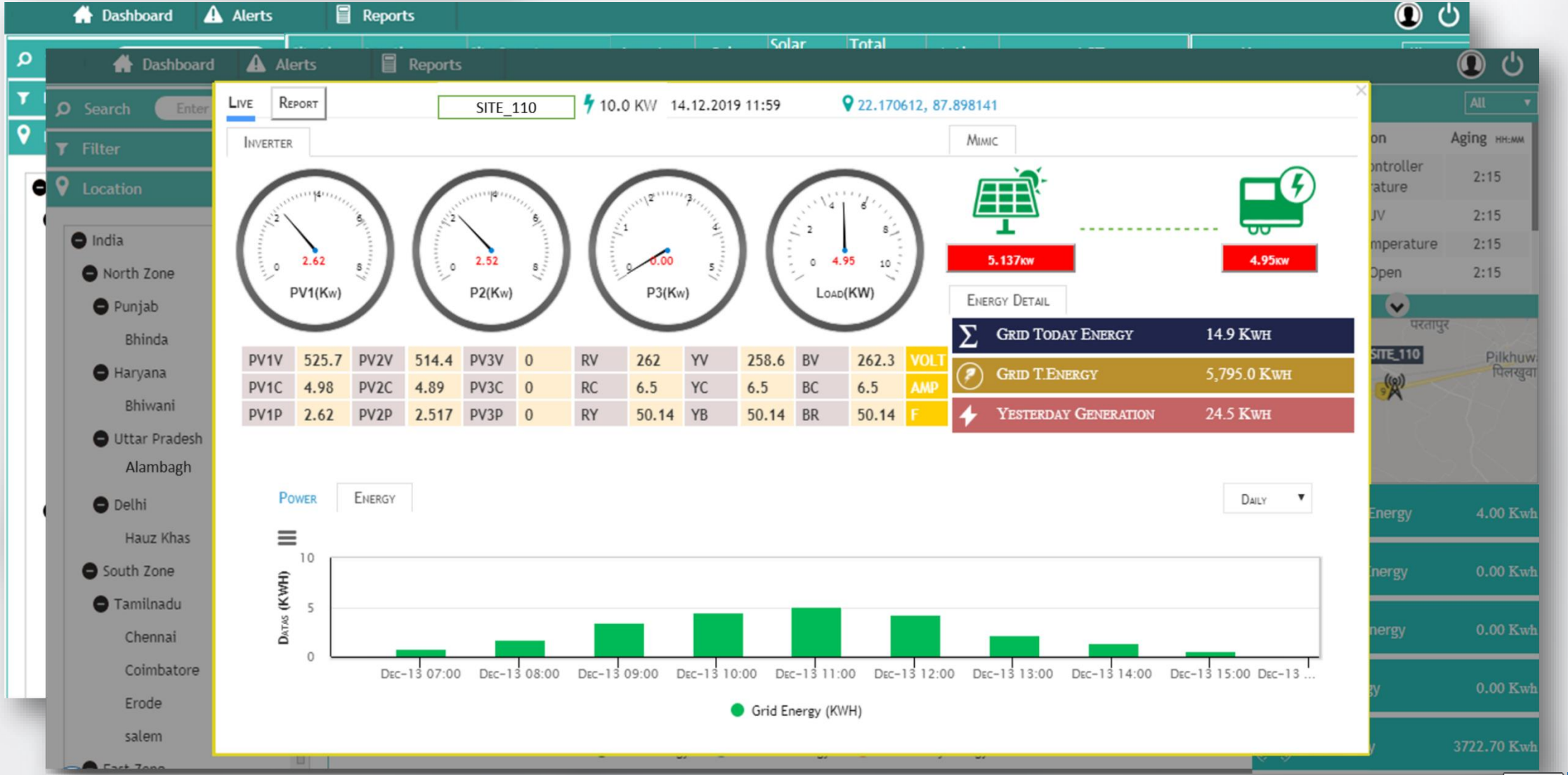
SOLAR INVERTER TYPE

Application Screenshots



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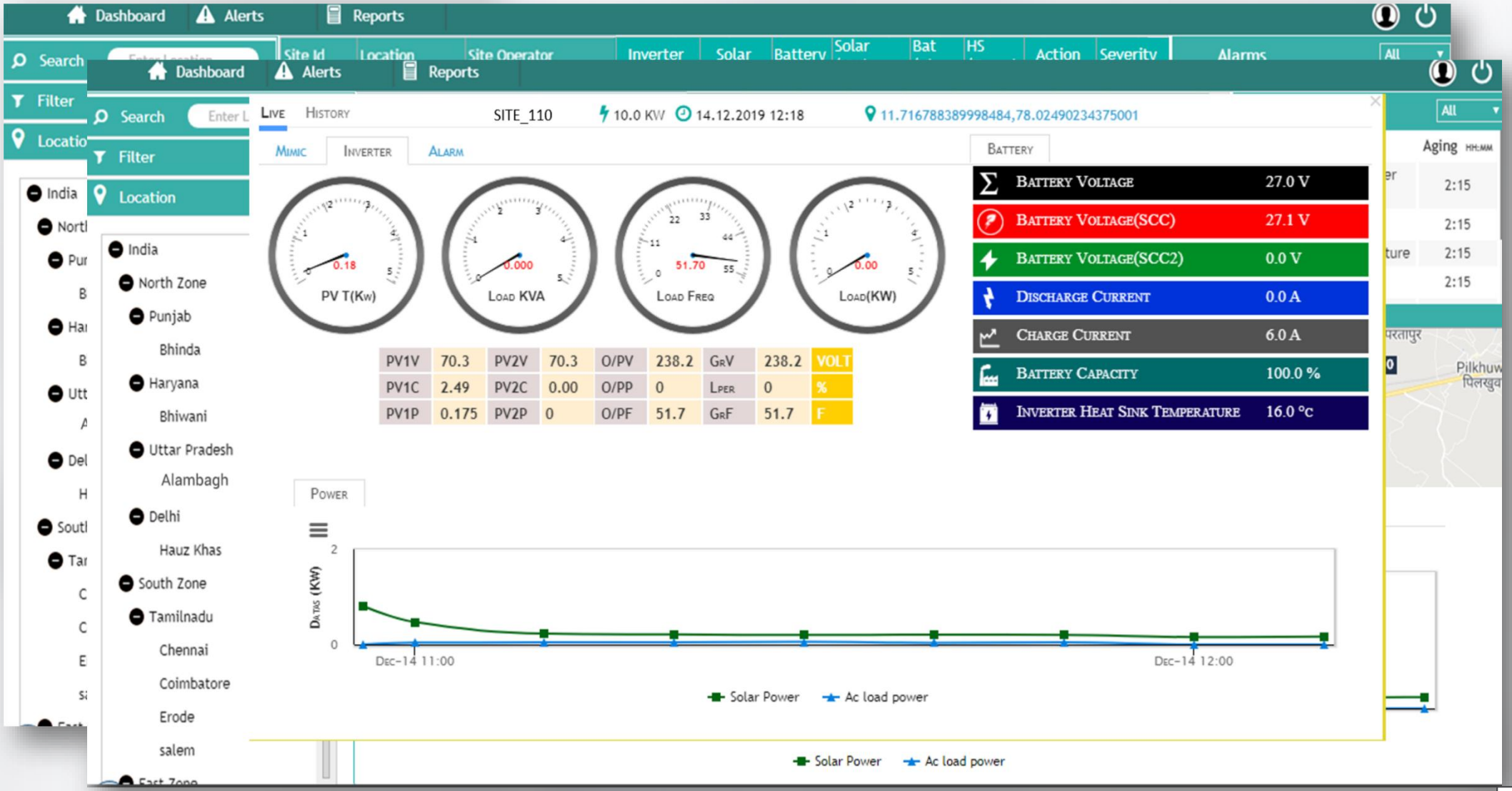
Application Screenshots



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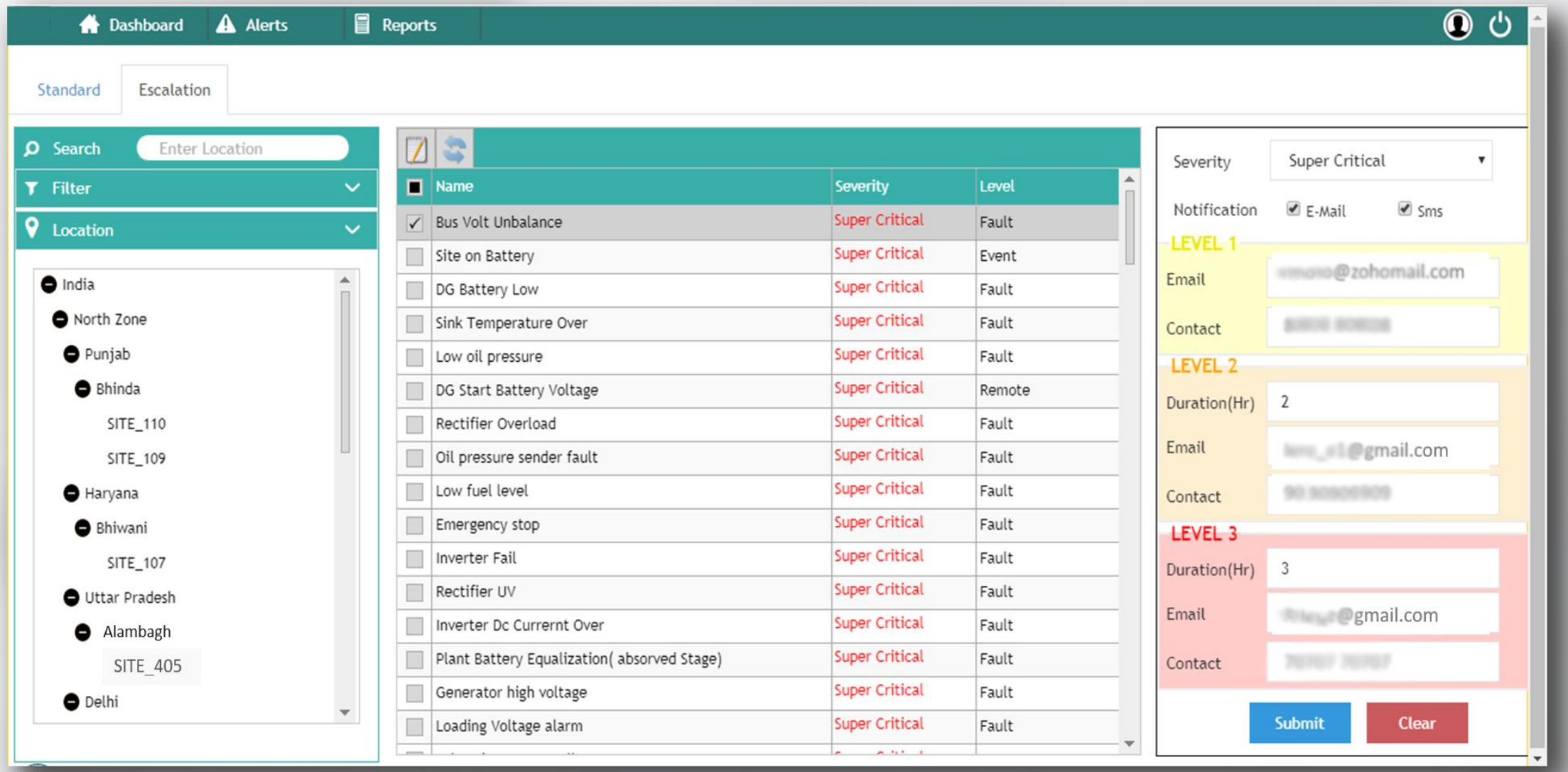
Alerts & Escalation Matrix : Application



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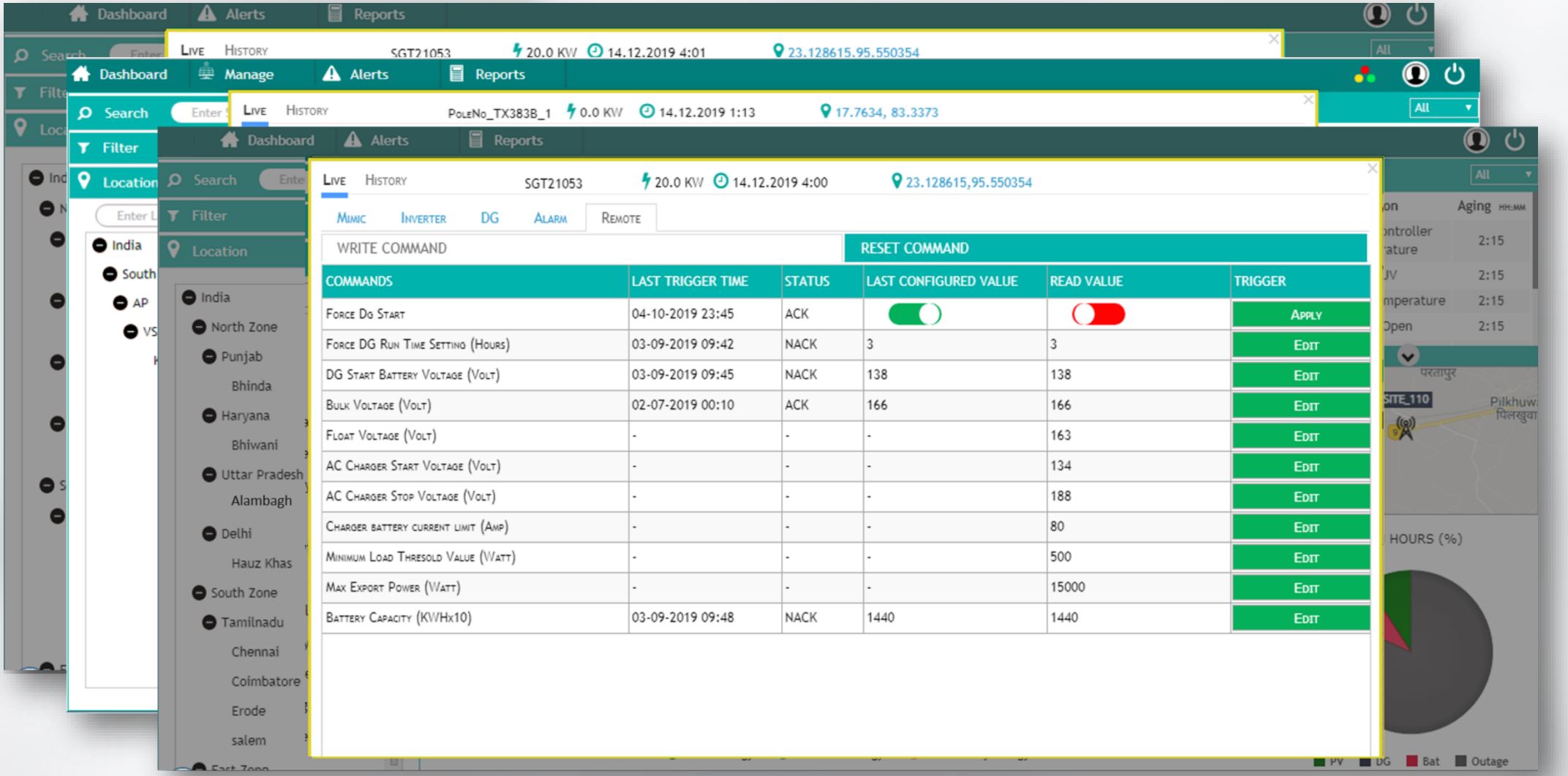
Remote Command : Application Screenshots



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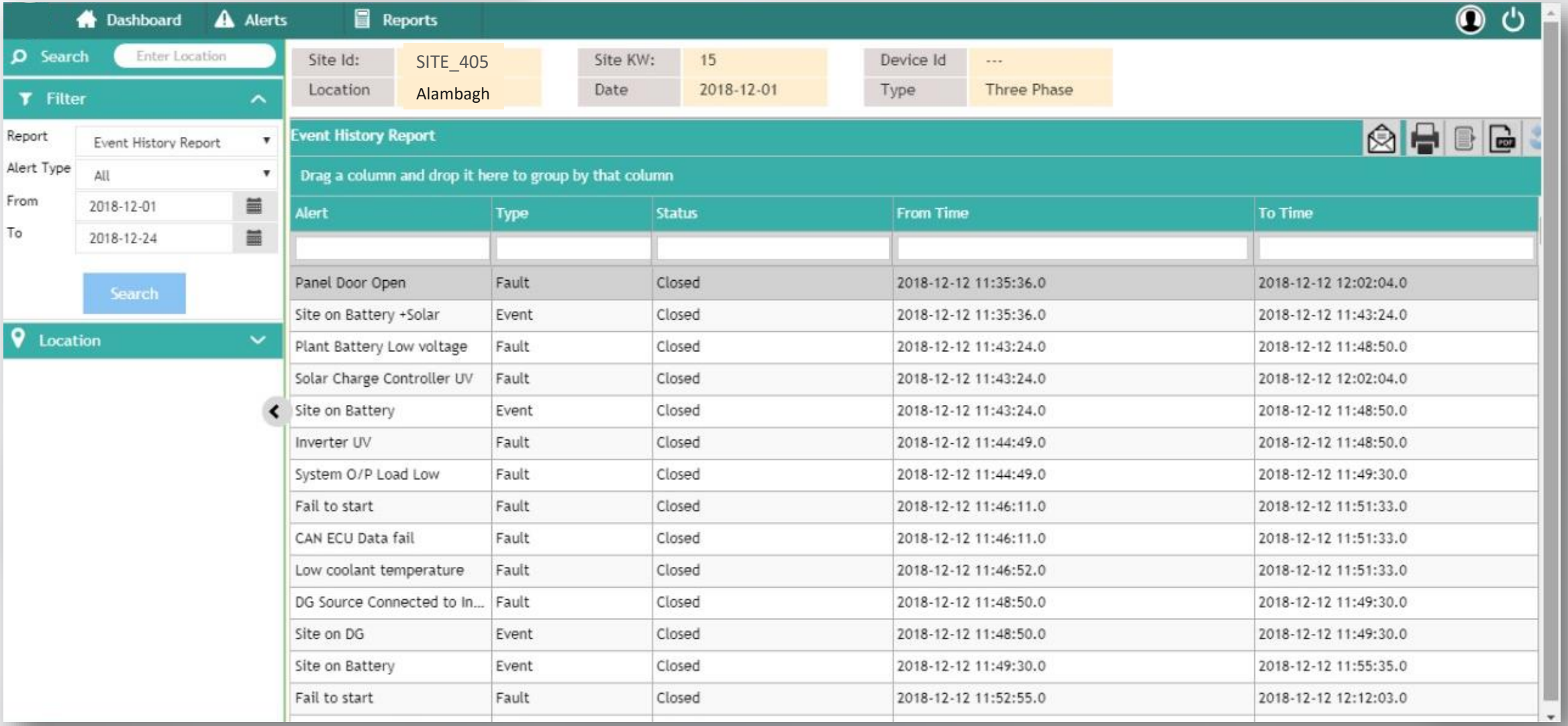
Reports



Alert	Type	Status	From Time	To Time
Panel Door Open	Fault	Closed	2018-12-12 11:35:36.0	2018-12-12 12:02:04.0
Site on Battery +Solar	Event	Closed	2018-12-12 11:35:36.0	2018-12-12 11:43:24.0
Plant Battery Low voltage	Fault	Closed	2018-12-12 11:43:24.0	2018-12-12 11:48:50.0
Solar Charge Controller UV	Fault	Closed	2018-12-12 11:43:24.0	2018-12-12 12:02:04.0
Site on Battery	Event	Closed	2018-12-12 11:43:24.0	2018-12-12 11:48:50.0
Inverter UV	Fault	Closed	2018-12-12 11:44:49.0	2018-12-12 11:48:50.0
System O/P Load Low	Fault	Closed	2018-12-12 11:44:49.0	2018-12-12 11:49:30.0
Fail to start	Fault	Closed	2018-12-12 11:46:11.0	2018-12-12 11:51:33.0
CAN ECU Data fail	Fault	Closed	2018-12-12 11:46:11.0	2018-12-12 11:51:33.0
Low coolant temperature	Fault	Closed	2018-12-12 11:46:52.0	2018-12-12 11:51:33.0
DG Source Connected to In...	Fault	Closed	2018-12-12 11:48:50.0	2018-12-12 11:49:30.0
Site on DG	Event	Closed	2018-12-12 11:48:50.0	2018-12-12 11:49:30.0
Site on Battery	Event	Closed	2018-12-12 11:49:30.0	2018-12-12 11:55:35.0
Fail to start	Fault	Closed	2018-12-12 11:52:55.0	2018-12-12 12:12:03.0

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Other Solutions

APPLICATION	FEATURES	INDUSTRIES
Mov-n-Track **B2B CUTTING-EDGE VEHICLE TRACKINGSOLUTION**	• Live Tracking • Tracking History • Track all your assets in a single screen • Remote Immobilization • Manage your Vehicle & Driver Information • Android & IOS Mobile App • Various Alerts & Reports, etc..	• General Transport, Logistics, Courier, Parcel handlers and Delivery companies • Car Lease, Rental Companies & Insurance Companies
WORK FORCE TRACKING **FIELD WORK FORCE MONITORING SOLUTION FOR GOVERNMENTS AND INDUSTRIES**	• Provides the tool to track and manage your employee / workers efficiently and effectively in a data driven world • Real Time monitoring of your employee / workers will ensure visibility and productivity • Real-time monitoring of the employee / workers will increase resource optimization and operational efficiency	• Municipality • Labor workers based companies • Street Sweeper Monitoring
REMOTE MONITORING & CONTROL **DIESEL GENERATOR, SOLAR PANELS, SOLAR PUMPS & ATM MONITORING SOLUTION**	• Monitor all parameters • Lock & Unlock Generators • Anti Theft Solution • Track History • Movement Detected Alert • Live Tracking • Tracking History • Track all your assets in a single screen	• Diesel Generators, Solar Panels • Banks & ATM Management Companies • Security and Safety companies • Telecommunication Companies with Diesel Generators and Batteries • Solar Panels, Industrial Machines, Diesel Equipment Manufacturing

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Other Solutions

APPLICATION	FEATURES	INDUSTRIES
GARBAGE COLLECTION **BASED ON** **RFID** **TECHNOLOGY** 	• Analytical Dashboard • Late Entry Alert: Vehicle entry at the bin late than allocated time • Late Exit Alert: Vehicle leaves late from a place • Live Tracking & Tracking History • Manage your Vehicle & Driver Information • Android & IOS Mobile App • Various Alerts & Reports, etc..	• Private & Government Municipality
SCHOOL KIDS TRACKING SOLUTION **BASED ON RFID TECHNOLOGY**	**FOR PARENTS** • Track School Bus • Kids safety • Location of the kids bus • Bus arrival alert • Kid arrival alert • Attendance status • Mobile application **FOR SCHOOL** • Fleet Management • Track School Bus • Avoid Misuse • Reports & Alerts • Students safety • Attendance of the student • Mobile & Web application	• Schools • Colleges • Rental Companies
FUEL MONITORING SOLUTION **Fuel** F E **B2B FUEL MONITORING &** **FUEL ANTI THEFT SOLUTION**	• Fuel Monitoring & Remote Immobilization • Manage your Vehicle & Driver Information • Live Tracking • Tracking History • Track all your assets in a single screen • Android & IOS Mobile App • Various Alerts & Reports, etc..	• General Transport, Logistics, Courier, Parcel handlers and Delivery companies • Car Lease, Rental Companies

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Other Solutions

APPLICATION	FEATURES	INDUSTRIES
ArmorOn **B2C** **CAR & BIKE** **ANTI-THEFT SOLUTION**	• Live Tracking • Tracking History • Remote Immobilization • Watch Mode • Anti Theft Alert • List of vehicles in a single screen • Easy configure by user itself • Android & IOS Mobile App	• Own Car/Bike owners • Rental Car/Bike Company • Sales companies Car/Bike
GPS COP **WATCH YOUR** **ASSETS** **B2C PERSONAL SAFETY SOLUTION**	• Two-way communication • Geo-fence alarm • Tracked by: SMS, APP, Web • Low battery & Shutdown notice • Vibration and movement alert • Live Tracking • Tracking History	• Parents to Monitor their child • The Seniors • Luggage • Employees/Workers monitoring • Asset Monitoring • Pets
SOLAR REMOTE MONITORING & CONTROL 	• Monitor the all parameters of the Solar panel • Live Tracking • Tracking History • Track all your solar panels in a single screen • Android & IOS Mobile App • Various Alerts & Reports, etc..	• Solar power based industries • Solar powered home

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