

# IoT Platform & Solution



# IoT Platform

# ▶ IOT PLATFORM INNOWAY

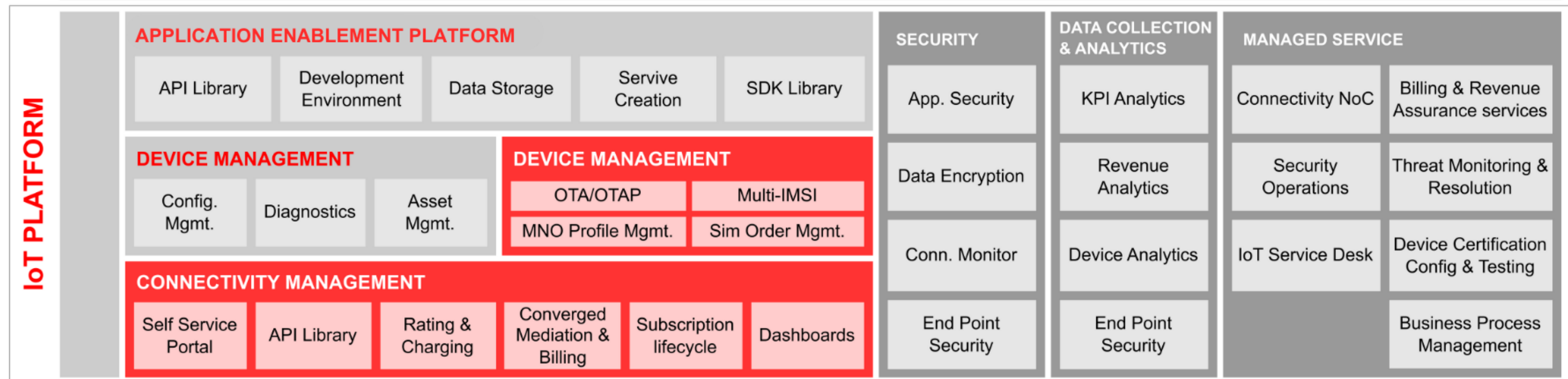
Innoway will simplify and optimize the process of building applications and IoT solutions from design to management with an all-in-one solution, including:

- Devices (Module)
- Software Development Kit (SDK)
- IoT Back-end Platform
- Applications (Application)

Innoway is a centralized IoT management system provided by VHT, enabling the collection of data from billions of hardware devices and offering real-time data management, monitoring, and analysis services. It is built upon four main layers:

- Things (Devices)
- Connectivity
- Core IoT functionalities
- Applications and data analysis

## PLATFORM as a SERVICE



IoT Application Enablement

IoT Connectivity Management

Shared Components

▶ BENEFITS

# FOR CUSTOMERS

## Comprehensive Platform

Allows customers to integrate devices and manage the entire process from connection- device- data and building applications/ websites. Thanks to that, users can manage all data on one system and easily expand in the future

## Flexible Customization

Everything is reprogrammable and reconfigurable so you can develop custom applications according to the needs of each specific business unit.

## Diverse Templates

Templates for smart city ranging from smart tracking, smart lighting, smart metering,...to support users in building their own models to save development time and cost.

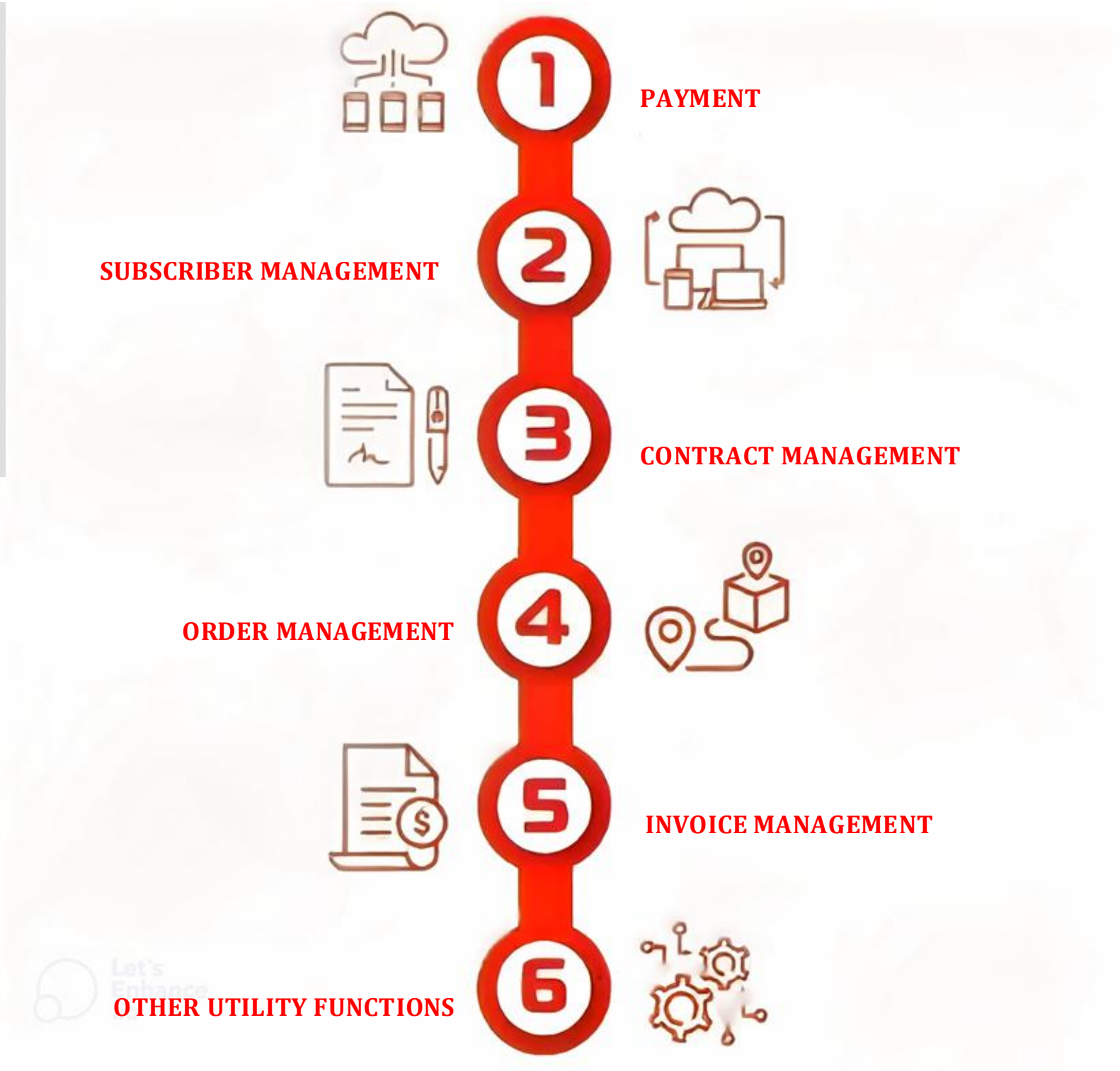
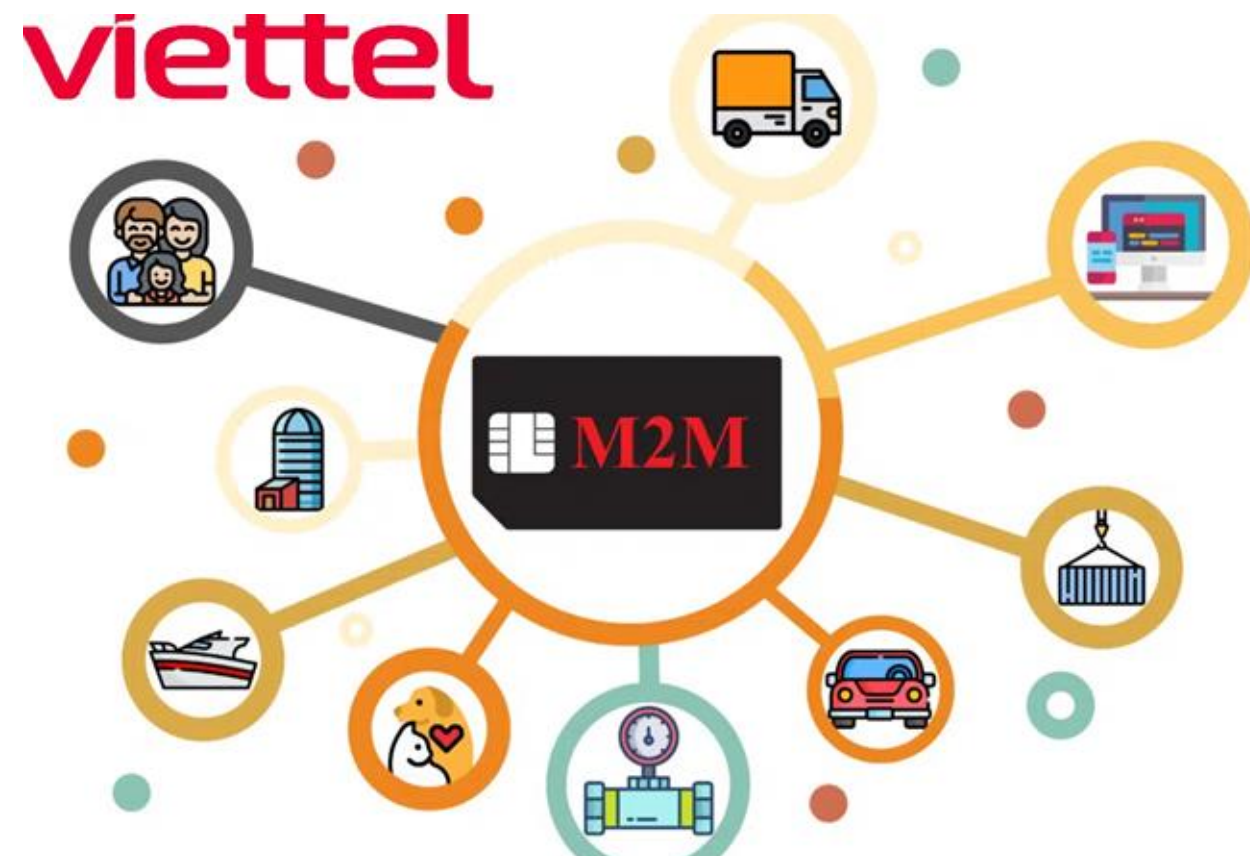
	Self-built	Built with Innoway	Available solutions
Cost	High	Reasonable	Reasonable
Time to development	Long	Shorter	Shorter
Controllability	Complete	Highly customizable and scalable	None



**CMP - Connectivity Management Platform**

## ▶ CMP - Connectivity Management Platform

- CMP is a platform for managing the connection of **IOT devices** using **Viettel's M2M SIM**.
- The implementation of activities is completely proactive and independent, not through the communication channels of the network operator.
- **Currently, the system has 1.6 million active subscribers. Nearly 400 enterprises are using the platform, including major companies such as Bình Anh, VinFast, VietMap, Xanh SM, and others.**
- CMP includes 2 main screens:
  - ❑ Landing page (<https://iot.viettel.vn>)
  - ❑ CMP operation screen



# ▶ CONNECTION MANAGEMENT PLATFORM

## TARGET AUDIENCE



Large and medium-sized enterprises (B2B)



IoT service providers



SIM card and service distributors

## BENEFITS



- Allows self-interaction, reducing costs related to M2M/IoT connectivity management and increasing control.
- Provides a powerful toolkit to optimize investment and device value.
- Expands connectivity services based on telecom infrastructure.
- Supports managing and monitoring device connections with network infrastructure.



# ▶ CMP - Connectivity Management Platform

## LANDING PAGE

- The website displays information allowing customers to view the entire IoT platform system.
- List of subscription packages provided by the network
- Smart products/solutions
- Navigate to other IoT modules to perform desired actions.

**viettel** [Introduce](#) [Package](#) [Product](#) [IoT Platform](#) [CMP System](#) [Support](#) [systemadmin05@test.com](#)

**Viettel M2M IoT 2023**

### Sim Data Service Data Transmission

M2M is a technology that allows devices to communicate with systems through a network connection. M2M data service: Is a service in which data sim is used to transmit data.

[IoT Products](#) [IoT Packages](#)

**Introduce**  
Sim Data service transmits data accurately and economically

- ✓ M2M is a technology that allows devices to communicate with systems over a network connection.
- ✓ M2M data service: Is a service in which data sim is used to transmit data.
- ✓ IOT technology is developed based on a combination of Internet technology (wifi network, 4G 5G broadband telecommunications network) and micro-electromechanical technology, helping users control everything more optimally with just 1 smart device.

[View product](#)

**M2M/IoT connection management platform**  
Save accurately and bring more value to customers

- Subscriber Management**  
Manage subscriber details, allowing easy lookup of subscriber information.
- Contract Management**  
Manage all business payment invoices, allow searching and downloading electronic invoices
- Order Management**  
Support businesses to manage detailed information of placed orders
- Top up subscription**  
Easy top-up for large batches of subscribers with a variety of package denominations
- Unlock/Block subscription**  
Support 1-way and 2-way opening/blocking of subscribers in large numbers through list files
- Register for package**  
Support diverse package registration/cancellation, cancellation of renewal with a large number of subscribers through list file
- Subscriber connection**  
Support connecting a large number of subscribers provided by the enterprise through the list file
- Order in bulk**  
Businesses choose a package and subscriber number to connect a large number of SIMs at once.

[Experience it now](#)

### M2M package products

Diverse packages to suit customer needs

Package: 4G/5G  Nb-IoT  Subscriber: Prepay  Pay later [Compare Packages](#)

[Metering](#) [Journey monitoring](#) [POS payment machine](#) [Smart loudspeaker](#) [Advertising screen](#) [Camera](#) [Car](#)  
[Point of sale equipment](#) [All](#)

Connect8	Connect18	Connect25
8,000 VND/30 days	18,000 VND/30 days	25,000 VND/30 days
✓ Free 64/64Kbps bandwidth	✓ Free 128/128Kbps bandwidth	✓ Free 256/256 Kbps bandwidth
✓ Free monthly subscription fee	✓ Free monthly subscription fee	✓ Free monthly subscription fee
✓ Registration code: M8_64KB	✓ Registration code: M18_128KB	✓ Registration code: M25_256KB
<a href="#">Sign up now</a>	<a href="#">Sign up now</a>	<a href="#">Sign up now</a>

### IoT Products

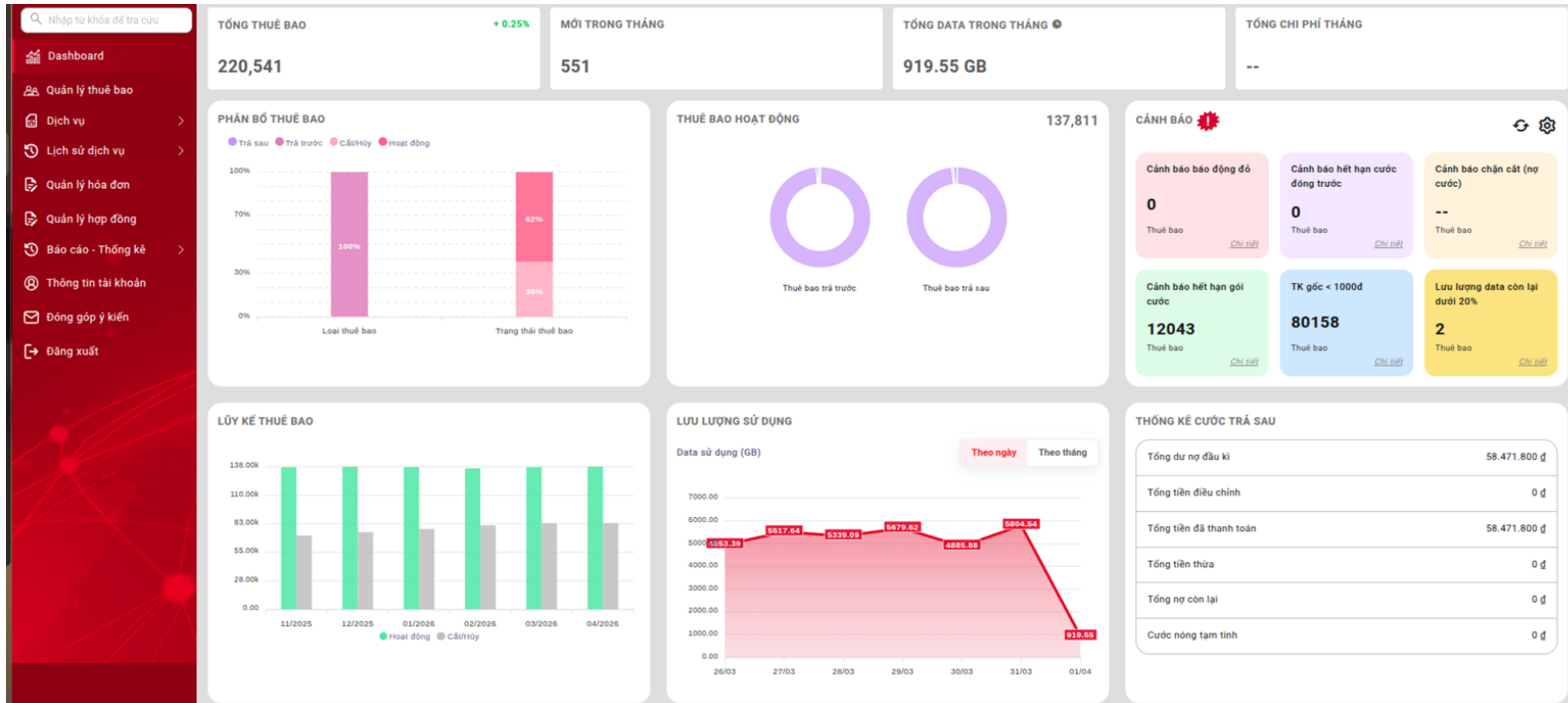
Diverse products to suit customer needs

- Smart Office** (Camera AI) [In development](#)
- Smart apartment** (Home Camera) [In development](#)
- Smart positioning** (vTag) [See details](#)
- Smart watch** (MyKID) [See details](#)

# ► CMP - Connectivity Management Platform

## Dashboard

- Customers can perform all functions provided by the CMP module:
  - ❑ Dashboard
  - ❑ Monitoring, Statistics and reports



# ▶ CMP - Connectivity Management Platform

## Subscriber Management

- Customers can perform all informations of subscriber provided by the CMP module:
  - ❑ Principal information: Status, balance, package, ...
  - ❑ Details of subscriber : Data used, details of package, endtime of package, ...

The screenshot displays the Viettel CMP Subscriber Management interface. On the left is a red sidebar with navigation options: Dashboard, Quản lý thuê bao, Dịch vụ, Lịch sử dịch vụ, Quản lý hóa đơn, Quản lý hợp đồng, Báo cáo - Thống kê, Thông tin tài khoản, and Đóng góp ý kiến. The main content area includes a search form with filters for subscription number, contract code, package, activation date, and GPKD. It also has filters for Serial, service type, and start date. A summary card shows 137811 subscribers. Below is a table of subscribers with columns for STT, subscription number, contract code, package, contract code, contract code, phone number, SIM serial, status, activation date, start date, service type, and check status. The table contains 10 rows of data. At the bottom right, there is a Zalo chat button and a pagination control showing 'Tổng 137811 bản ghi' and page numbers 1 and 2.

STT	Số thuê bao	Mã TB	Gói cước	Mã CTKM	Mã hợp đồng	Mã KH	Serial sim	TT chặn cắt	Kích hoạt	Đầu nối	Loại DV	Kiểm tra
1	<a href="#">382066710</a>	1029345853	DBI8		0	11137553784	8984040354005484649	Bình thường	14:37 27/07/2012	11:59 05/02/2008	Trả trước	<a href="#">Chi tiết</a>
2	<a href="#">389392562</a>	1041042481	DBIZ10		0	11137553784	8984047754004328953	Bình thường	17:59 16/09/2011	16:16 13/06/2008	Trả trước	<a href="#">Chi tiết</a>
3	<a href="#">389392490</a>	1041045794	DBI8		0	11137553784	8984047754004328918	Bình thường	17:47 16/09/2011	16:18 13/06/2008	Trả trước	<a href="#">Chi tiết</a>
4	<a href="#">389382455</a>	1041291086	DBI8		0	11137553784	8984047754004325128	Bình thường	12:53 17/09/2011	02:45 14/06/2008	Trả trước	<a href="#">Chi tiết</a>
5	<a href="#">352341943</a>	1088187703	DBI8		0	11137553784	8984048894000331296	Bình thường	15:24 26/07/2009	06:15 04/06/2009	Trả trước	<a href="#">Chi tiết</a>
6	<a href="#">376769403</a>	1092666132	DBI8		0	11137553784	8984048894002124232	Bình thường	11:14 19/01/2010	14:31 02/07/2009	Trả trước	<a href="#">Chi tiết</a>
7	<a href="#">398982784</a>	1093606517	DBI8		0	11137553784	8984048894006452731	Bình thường	15:07 23/07/2013	06:06 27/01/2013	Trả trước	<a href="#">Chi tiết</a>
8	<a href="#">398982844</a>	1093606522	DBI8		0	11137553784	8984048894006452736	Bình thường	15:03 23/07/2013	06:02 27/01/2013	Trả trước	<a href="#">Chi tiết</a>
9	<a href="#">398982480</a>	1093618880	DBI8		0	11137553784	8984048894006452703	Bình thường	11:53 23/07/2013	06:05 27/01/2013	Trả trước	<a href="#">Chi tiết</a>
10	<a href="#">375872702</a>	1101582536	DBI8		0	11137553784	8984048502005774982	Bình thường	08:21 23/07/2013	06:37 27/01/2013	Trả trước	<a href="#">Zalo</a>

# ▶ CMP - Connectivity Management Platform

## Contract Management

- Customers can perform all informations of contract provided by the CMP module:
  - ❑ Principal information: Number contract, status, adress, ...
  - ❑ Details of contract : Outstanding charges, charges payable

🔍 Nhập từ khóa để tra cứu

Dashboard

Quản lý thuê bao

Dịch vụ >

Lịch sử dịch vụ >

Quản lý hóa đơn

**Quản lý hợp đồng**

Báo cáo - Thống kê >

Thông tin tài khoản

Đóng góp ý kiến

Đăng xuất

### Thông tin tìm kiếm

Số hợp đồng  Mã hợp đồng

[Export](#) [Reset](#) [Tra cứu](#)

STT	Mã hợp đồng	Số hợp đồng	Trạng thái	Ngày hiệu lực	TB đại diện	Địa chỉ	Thao tác
1	<a href="#">634980883</a>	634980883/TTDD_VT/26012024	Hoạt động	00:00 26/01/2024	1699106026	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
2	<a href="#">615883149</a>	615883149/VT/01042020	Hoạt động	00:00 01/04/2020	981141649	Sim test Trung tâm Sản phẩm Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
3	<a href="#">616239945</a>	616239945/VT/23042020	Hoạt động	00:00 23/04/2020	378348372	Sim test Trung tâm Sản phẩm Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
4	<a href="#">616375819</a>	616375819/VT/04052020	Hoạt động	00:00 04/05/2020	339027945	Sim test Trung tâm Sản phẩm Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
5	<a href="#">620028001</a>	620028001/VT/11012021	Hoạt động	00:00 11/01/2021	349335822	Sim test Trung tâm Sản phẩm Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
6	<a href="#">631234112</a>	631234112/VT/02062023	Hoạt động	00:00 02/06/2023	363922970	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
7	<a href="#">631830167</a>	631830167/VT/11072023	Hoạt động	00:00 11/07/2023	1699887861	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
8	<a href="#">631907316</a>	631907316/VT/17072023	Hoạt động	00:00 17/07/2023	1699887868	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
9	<a href="#">631907730</a>	631907730/VT/17072023	Hoạt động	00:00 17/07/2023	1699887869	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>
10	<a href="#">631908153</a>	631908153/VT/17072023	Hoạt động	00:00 17/07/2023	1699887870	Sim test Trung tâm Di động Số 01 Giang Văn Minh, Tổ 1, Kim Mã Ba Đình Hà Nội	<a href="#">Tra hoá đơn</a>

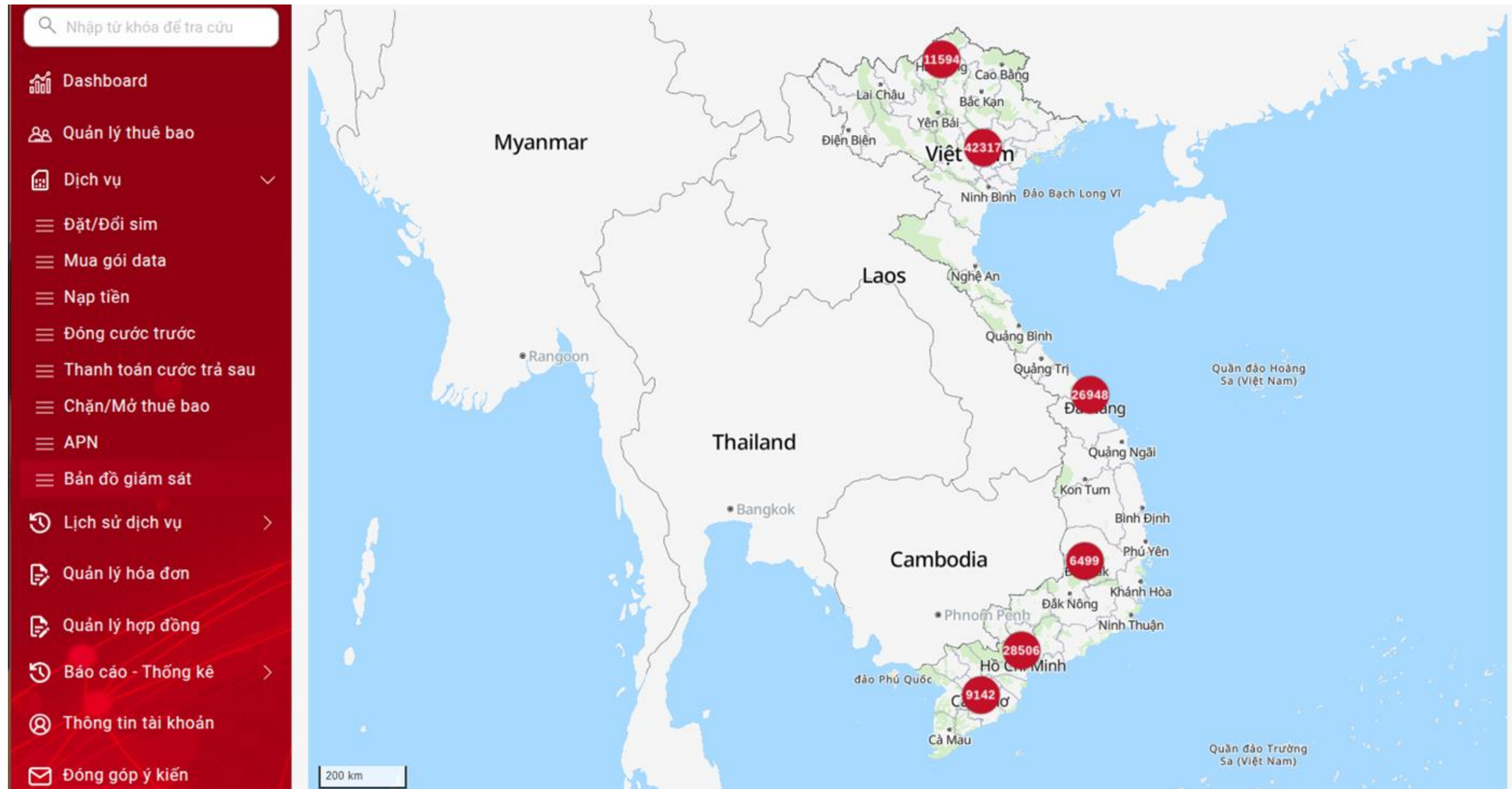
Tổng 27 bản ghi

10 ▾ Bản ghi/trang [1](#) [2](#) > >>

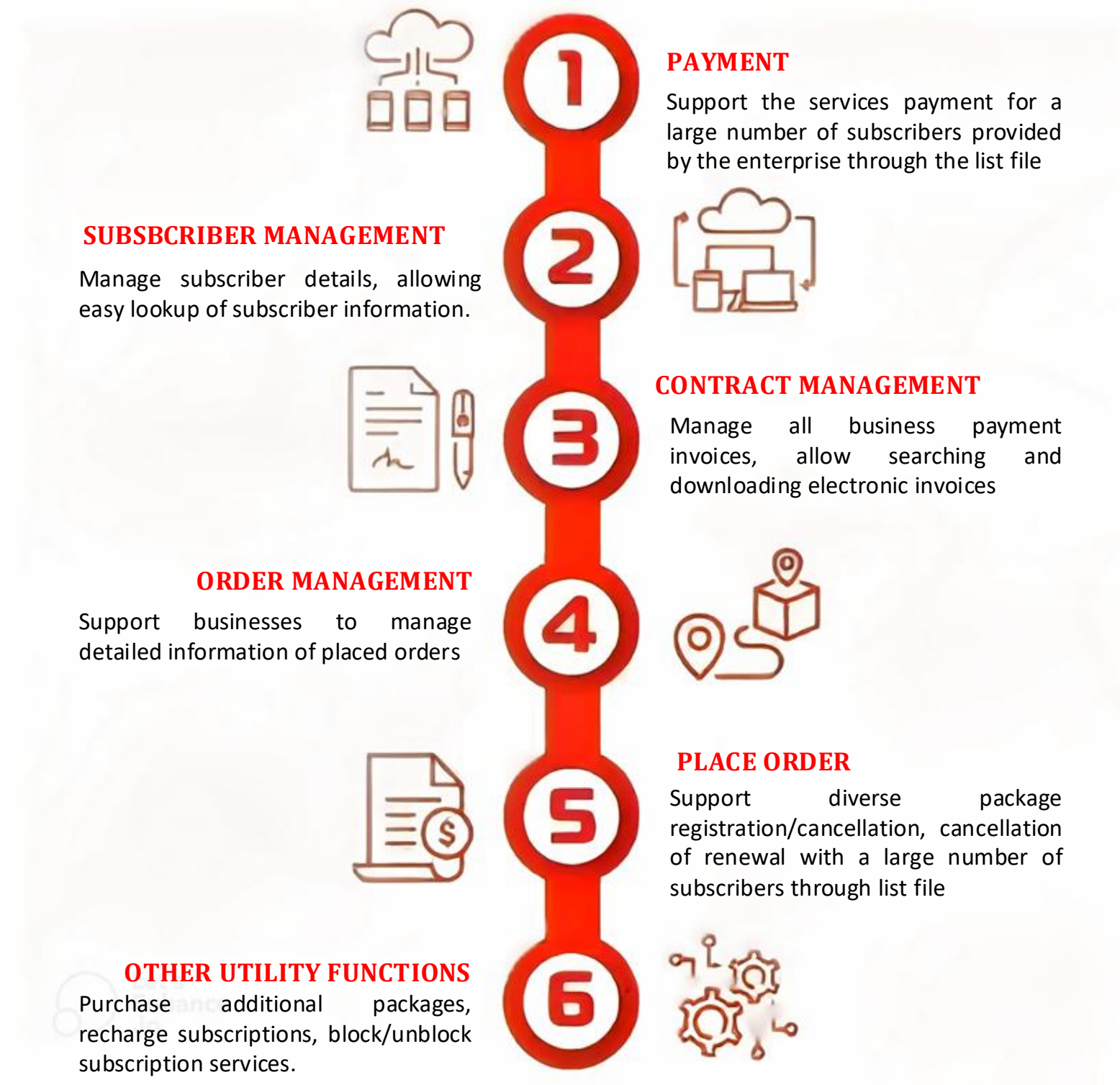
## ▶ CMP - Connectivity Management Platform


### Subscriber monitoring map

- Customers can perform geolocations of subscriber provided by the CMP module:
  - ❑ Principal information: Volume of subscriber through area, ...
  - ❑ Details of subscriber : Postion of a subscriber, history of geolocation of subscriber, ...



# ▶ CMP - Connectivity Management Platform





# **TMS - Transportation Management System**

## ▶ TRANSPORTATION VEHICLES MANAGEMENT AND MONITORING SYSTEM

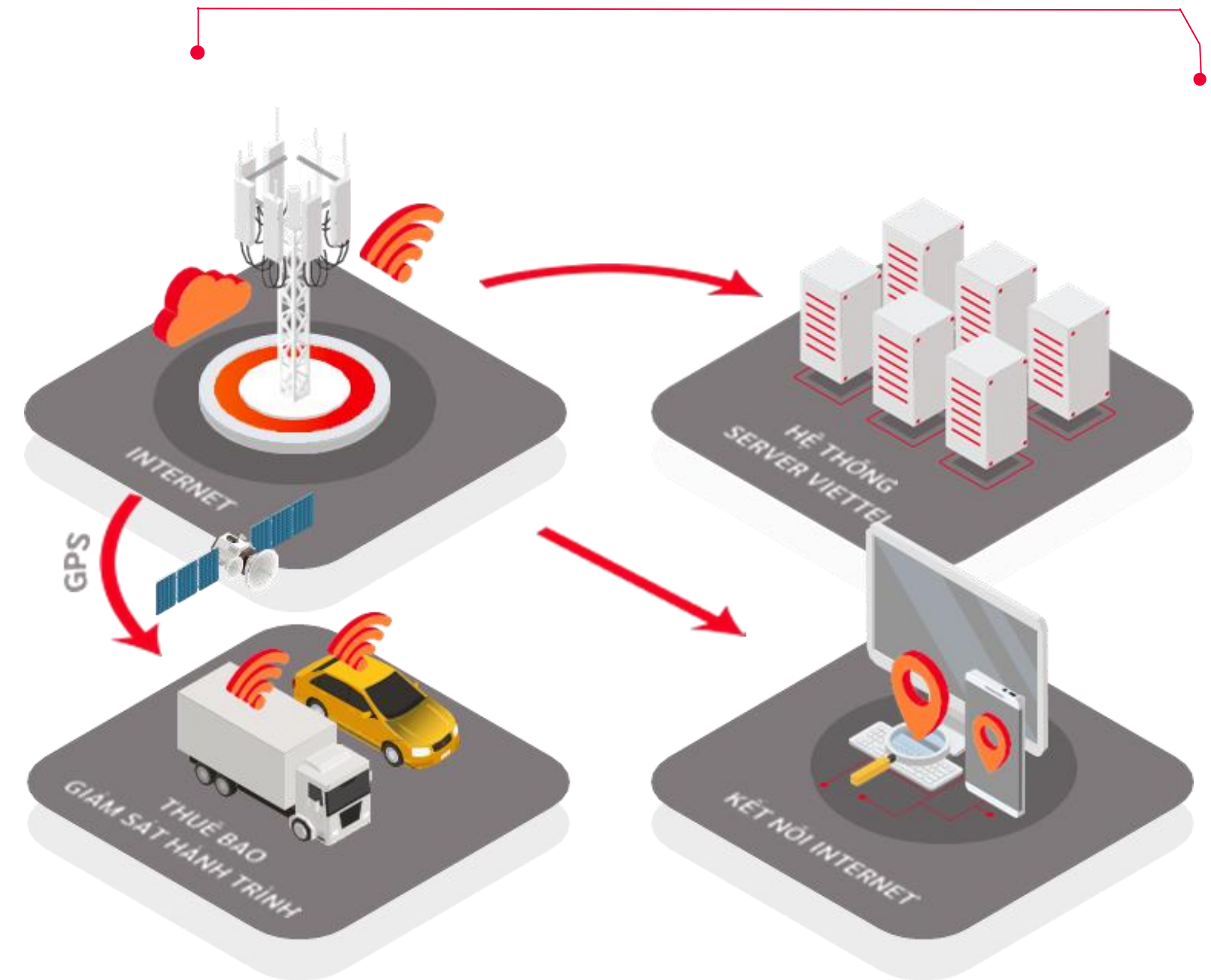
# VEHICLE TRACKING

Just access the system from internet-connected devices to monitor the routes and manage your vehicles.

- The reporting system on the server is accurate and complete, following the QCVN/2014-BGTVT standard.
- The devices are compliant with the latest regulations of the Ministry of Transport.
- Being customizable according to each individual customer's needs.
- Competitive pricing packages are available.

### FEATURES

- Location tracking
- Real-time video surveillance
- Reviewing travel history
- Instant alerts
- Diverse reporting



26000  
Customers



68000  
Total activated  
subscribers.



Distributed agents across  
**63** provinces

## ► DEVELOPMENT STRATEGY

- Strategic focus on safety management, legal compliance, and operational excellence.
- Shaping the future of transportation with technology.



# ► SOLUTION

Providing high-expertise solutions for all commercial vehicle sectors.



**SAFETY**

**COMPLIANCE**

**EFFICIENCY**

## ► CORE FEATURES

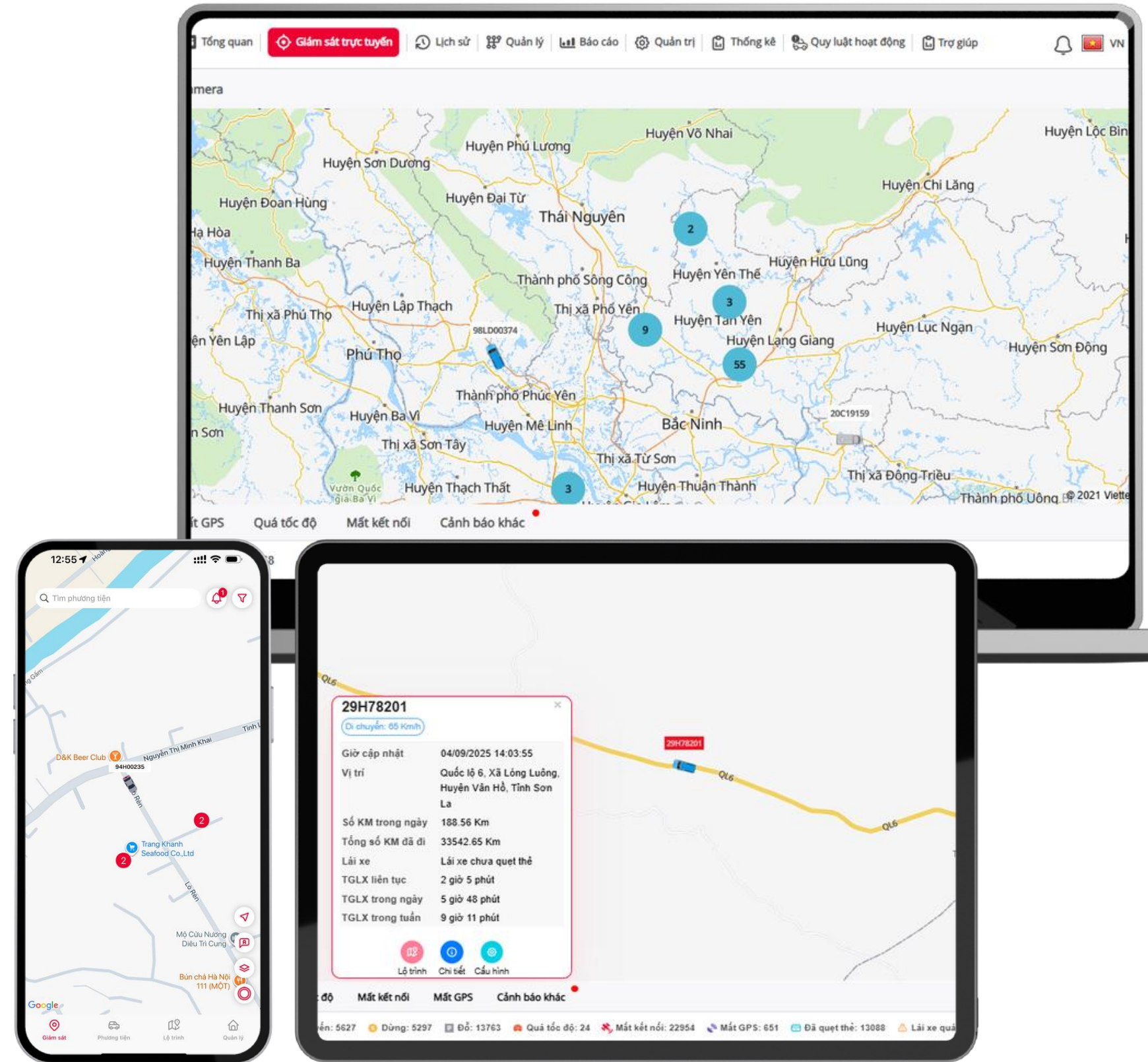
# TRACKING VEHICLES

- **Current Position & Status.**

- Real-time location on the digital map
- Operational status: Moving/Stopping (temporary stop)/Parking (longer stop/parked)/Disconnected (lost connection)/GPS Lost...

- **Vehicle Parameters:**

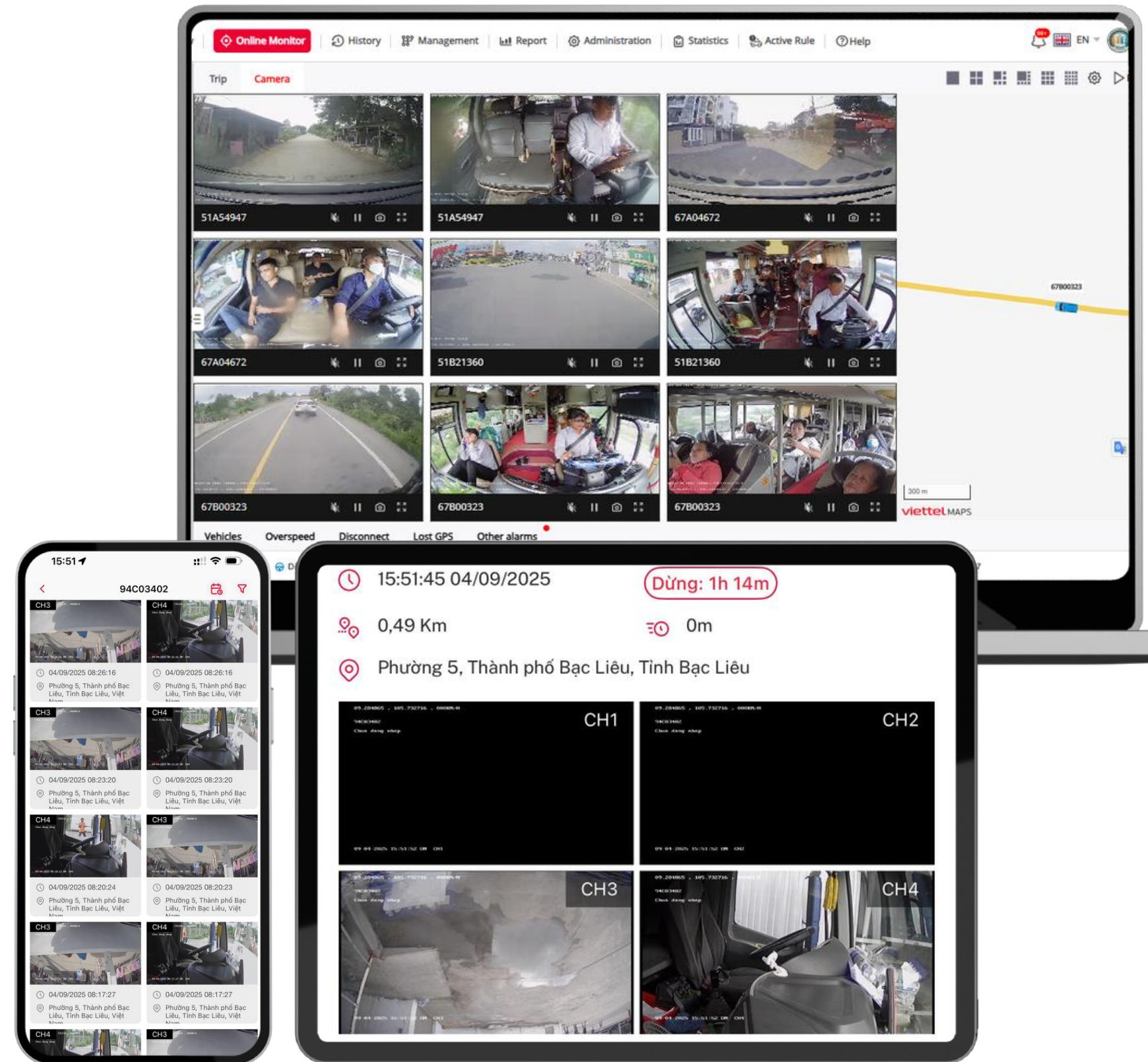
- Speed, Miles/kilometers
- Fuel status
- Door open/close status
- Engine on/off status
- Air-conditioning status
- etc...



## ► CORE FEATURES

# VIDEO & IMAGE MONITORING

- Live streaming of high-quality video without limitations on data volume or duration
- Multi-camera viewing: Watch multiple cameras of a single vehicle simultaneously on one screen
- Image monitoring and download within a specified time range
- Automatic image capture every 3 minutes



## ► CORE FEATURES

# JOURNEY PLAYBACK

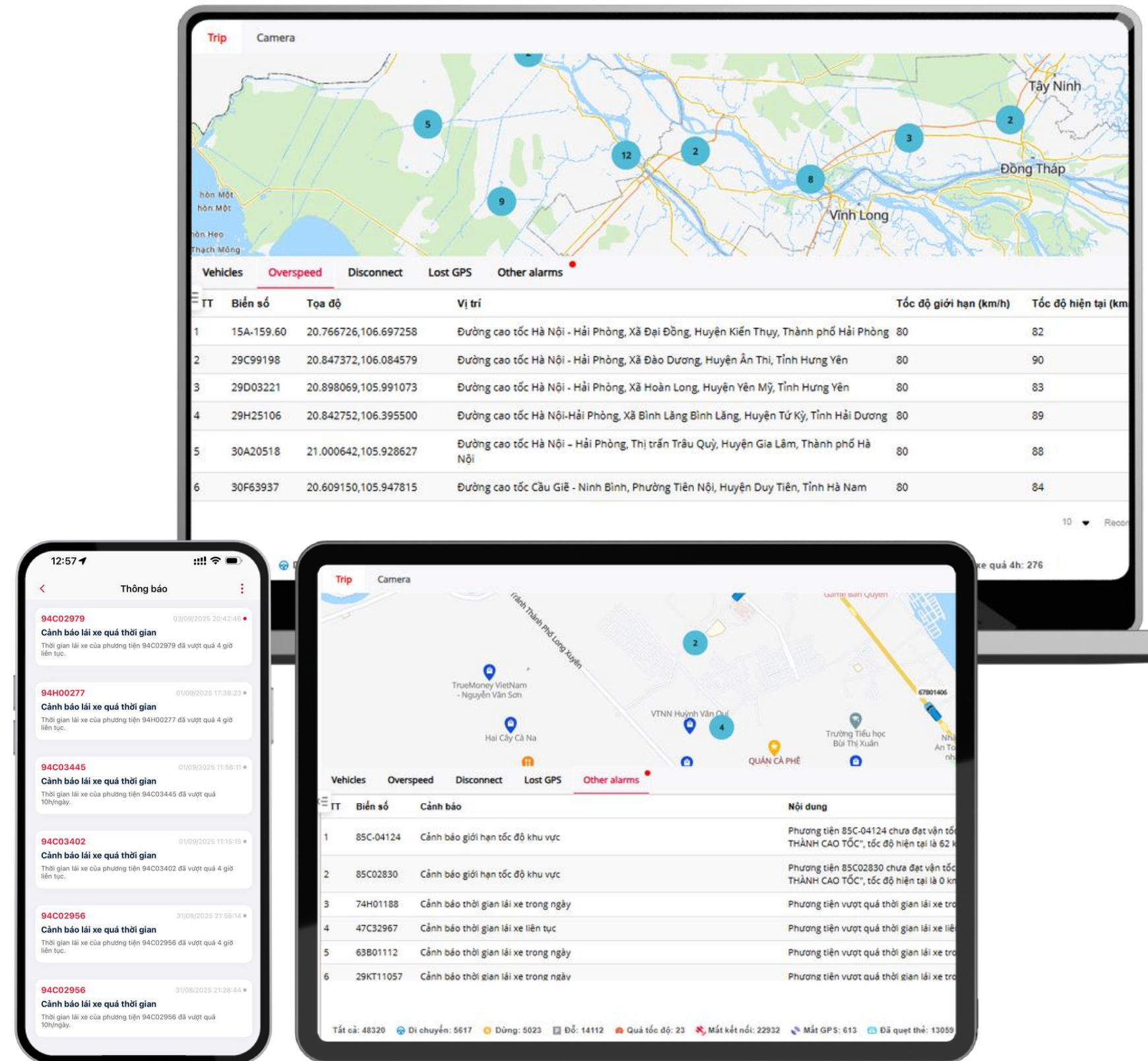
- Replay high-definition videos and images stored on the device or in the cloud
- Review vehicle journeys within a specified time range (including timestamp, status, and location)
- Visual route playback on the map with adjustable playback speeds
- Summarized statistics: total distance traveled, total number of stops, and total stop duration



## ► CORE FEATURES

# INSTANT ALERTS

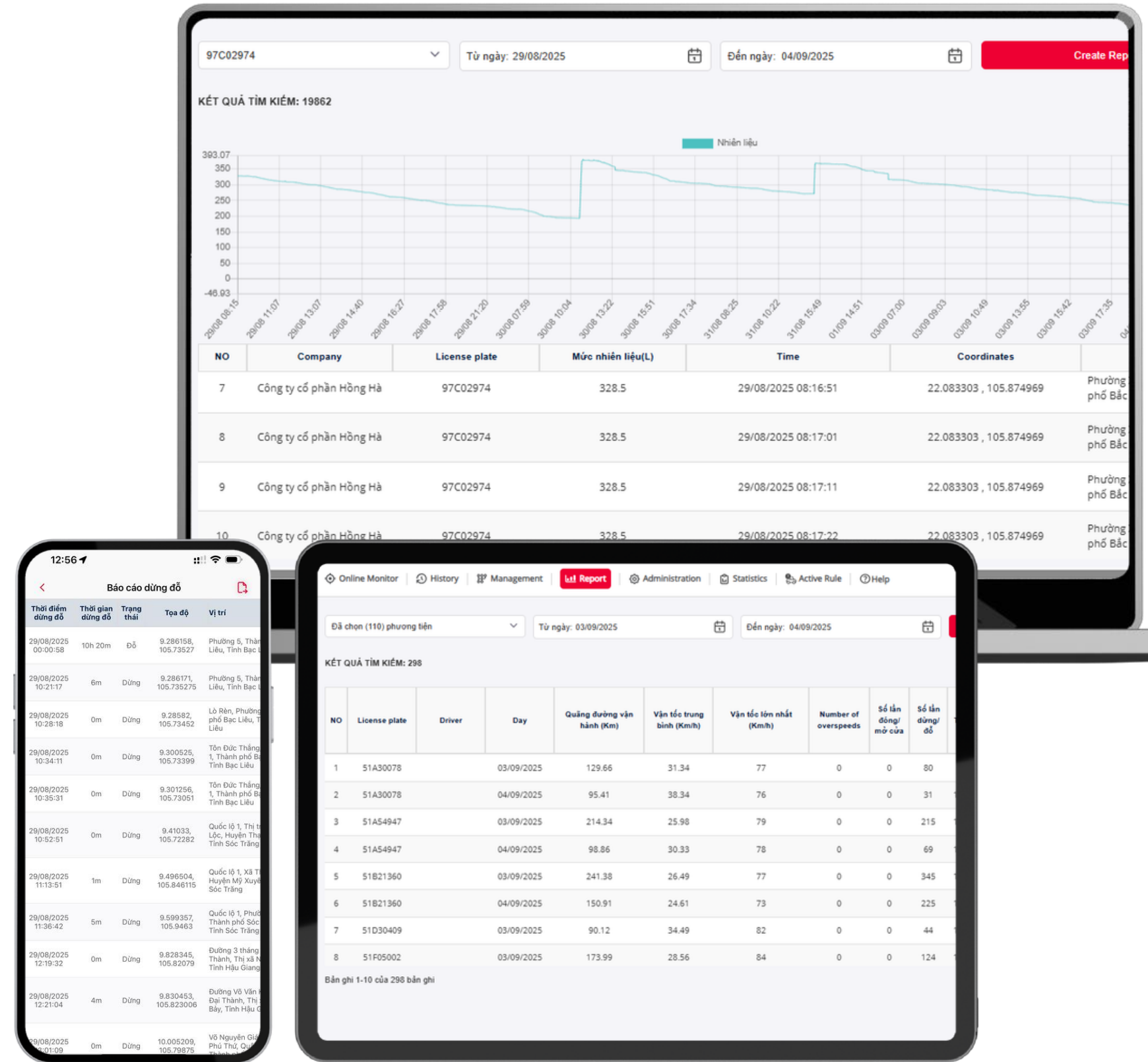
- Supports alerts for cases such as SOS, speeding, continuous driving time violations, and working time violations.
- Fuel Drain Detection
- Configurable alert thresholds for vehicle owners, with notifications delivered via SMS or Email.
- Display real-time alert information on the online monitoring screen.



## ► CORE FEATURES

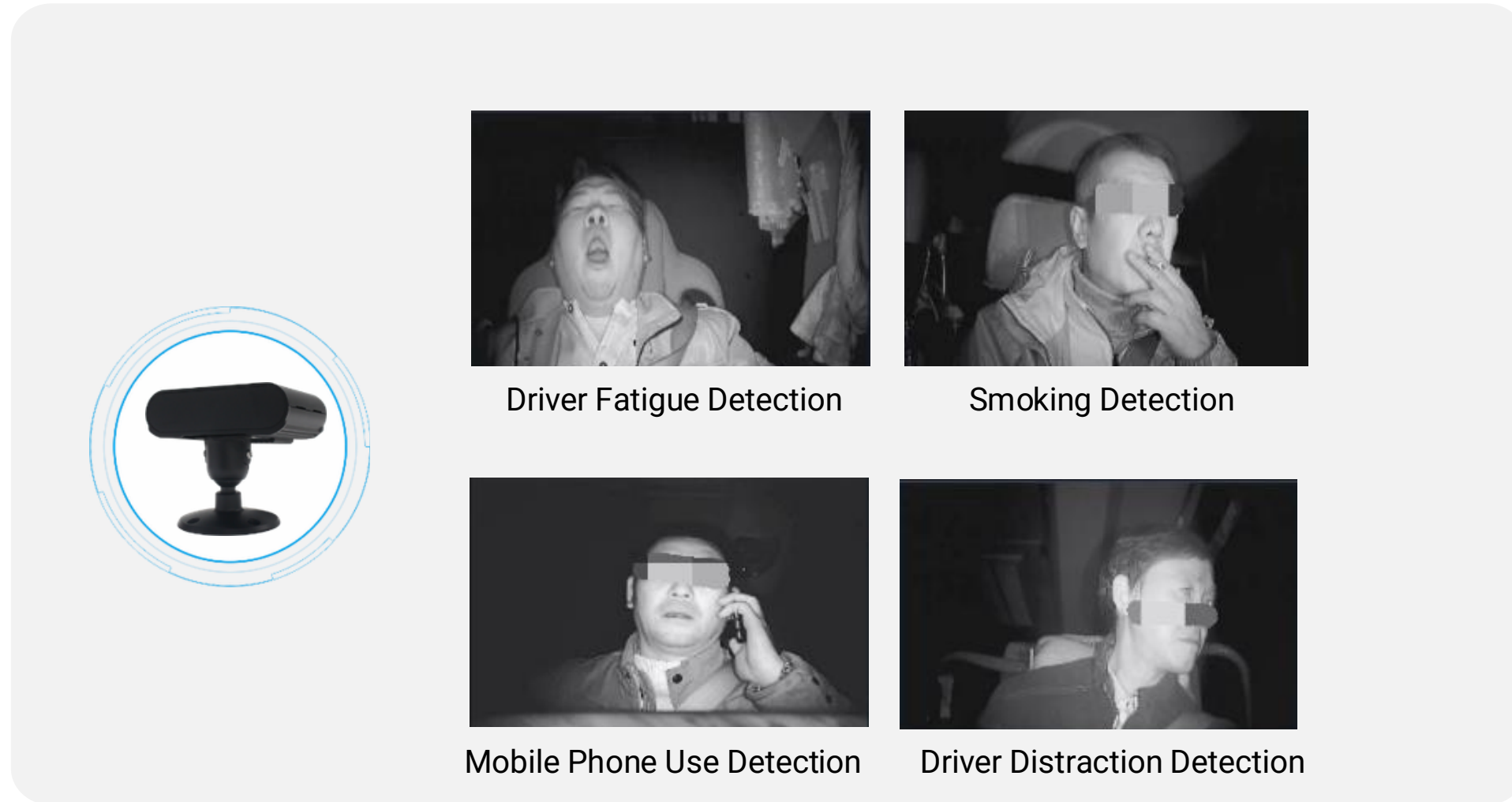
# COMPREHENSIVE REPORTING

- A wide range of business-specific reports for enterprises, such as:
  - Overview
  - Activity detail by day
  - Working time
  - OverSpeed
  - etc...
- Diverse reporting capabilities integrating data from various types of sensors:
  - Fuel History
  - Fuel Consumption over distance
  - Lost GPS
  - Temperature History
  - and more...



# ▶ ADVANCED FEATURES

## DMS - DRIVER STATUS MONITORING



Driver Fatigue Detection

Smoking Detection

Mobile Phone Use Detection

Driver Distraction Detection



Fatigue



Using Mobile Phone




Smoking



Driver Absence



Distraction



Facial Recognition



# **S-Tracking Vessel Monitoring System**

## ▶ S-TRACKING VESSEL MONITORING SYSTEM

**S-Tracking Vessel Monitoring System** is the system that allows users to track and monitor activities of vessels from website and application on smartphone. Providing real time alerts and improving search and rescue activities.



**>11000**

Devices sold

**21**

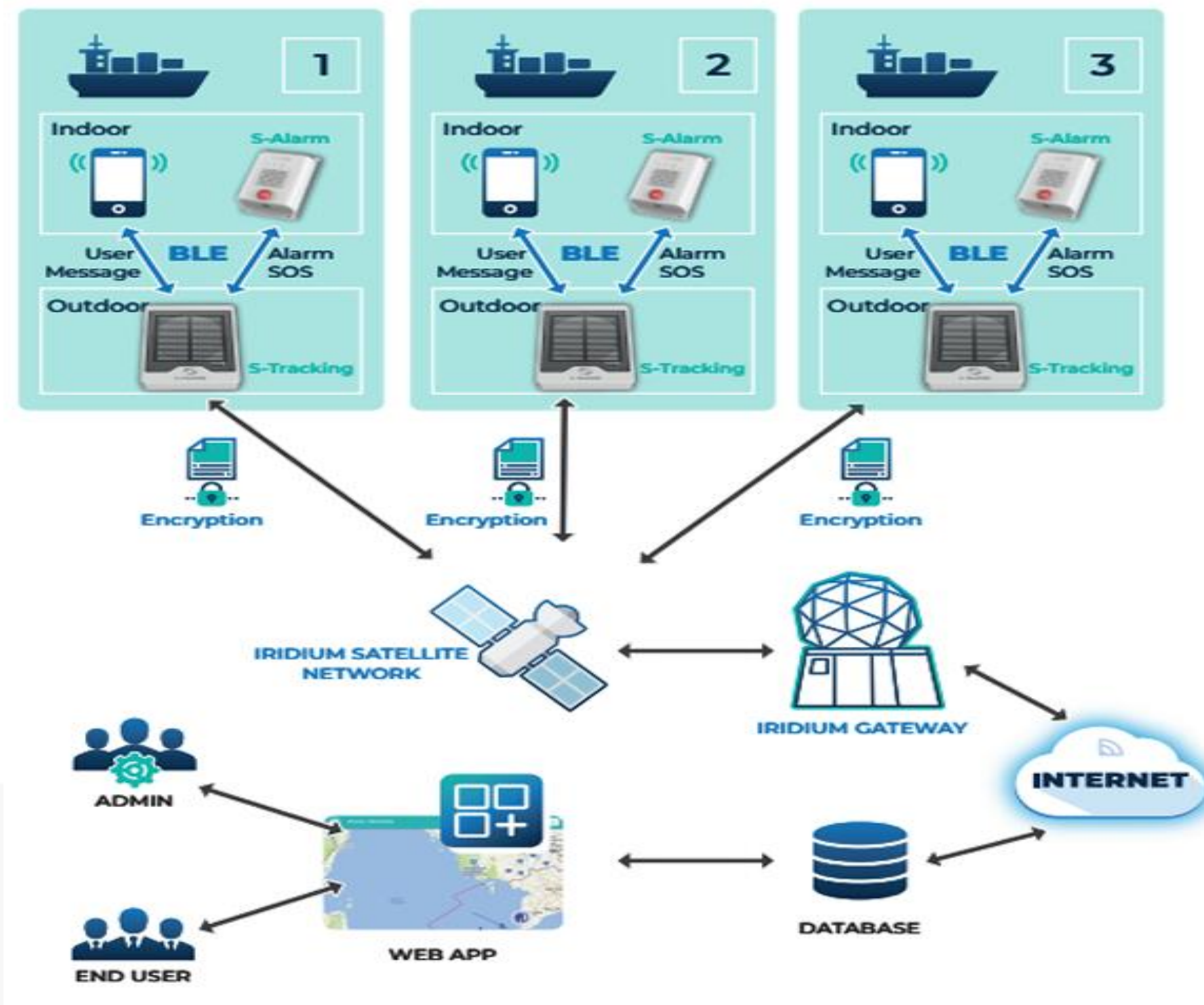
Coastal provinces across  
Vietnam

**~30%**

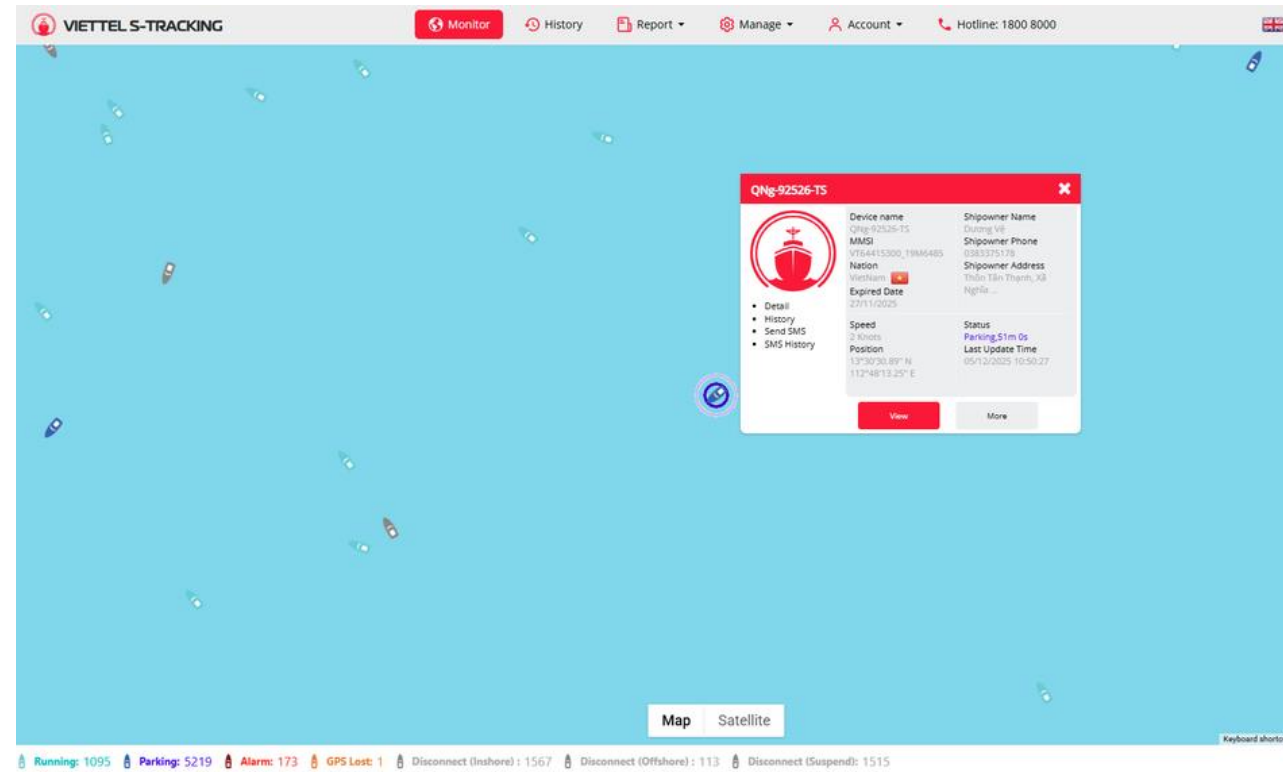
Market share in Vietnam

## ▶ VESSEL MANAGEMENT SYSTEM

- The system supports the ability to export reports on the vessel's journey and logbook to eradicate Illegal, Unregulated and Unreported fishing (IUU); Fisheries Monitoring Centers need to be ready to introduce Electronic Reporting Systems to ensure the traceability of their fleet's catches



# ▶ MAIN FUNCTIONS

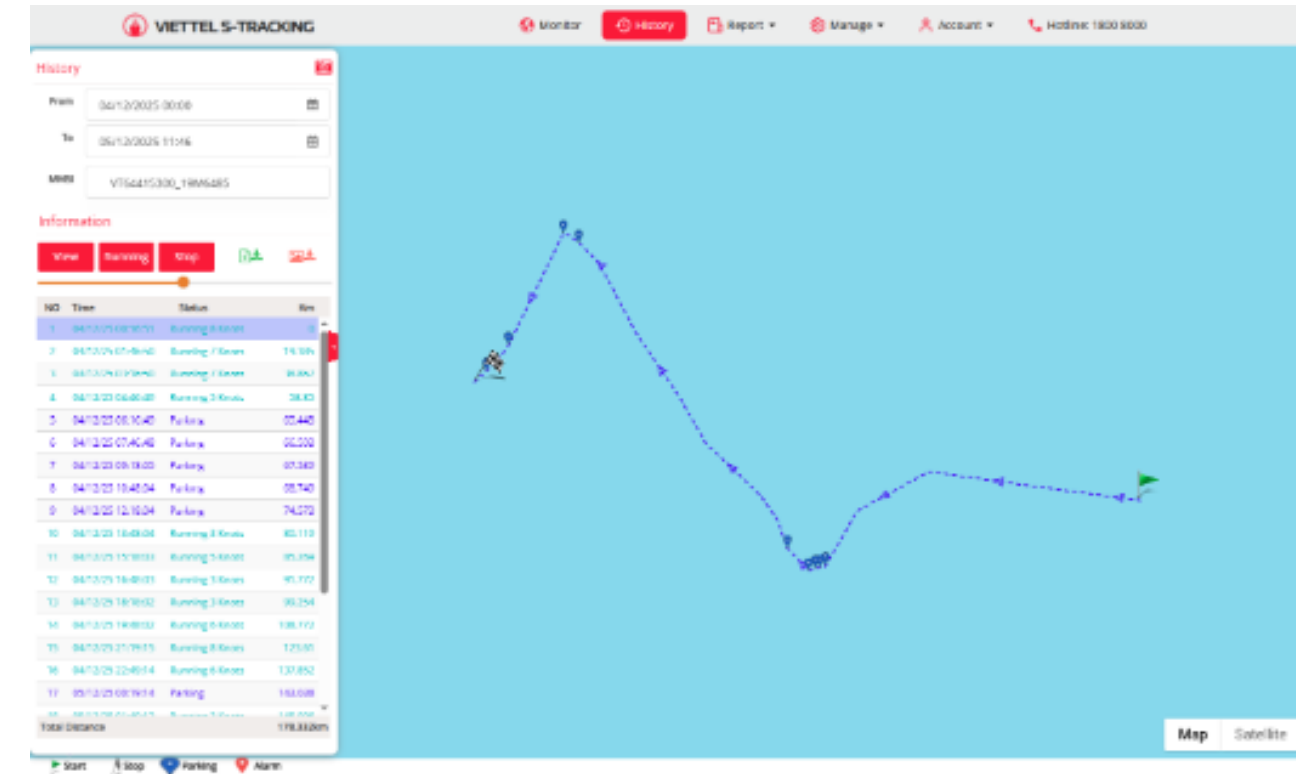


Display data on the web, including ship code, ship name, coordinate, speed, operating status (parked, run, disconnected, alert)

Display alerts (SOS, Low battery, cross border)

Display journey history

Customized itinerary reports, Alert reports, and fishing log reports



Playing alarm sounds and highlighting the ship that is sending emergency signals to the shore, or the ship breaching geographic boundaries.

Sending text messages to relatives and direct management agencies when the ship is in trouble.

Sending emergency alerts to the ship by voice sounds such as: hurricane and storm, crossing the boundaries.

Sending alerts when the internal battery of the device is about to run out.

# ▶ OUTDOOR DEVICE (S-TRACKING TERMINALS)

## KEY FEATURES

- **Automatic Vessel Tracking**

Automatically send vessel's real-time information every hour in default-setting mode or every 15 minutes in case of emergency

- **Two-way Communication**

Receive and send SMS between monitoring center and vessel

- **1-year Data Storage**

Save the entire data history for 1 year even in the event of power failure.

- **Power**

Solar energy

Internal Battery

DC power

- **Advanced Security**

Encrypt sending and receiving data

- **Connection**

Satellite network

GSM

Bluetooth



- **Emergency alert**

Storm alert

Search and Rescue (Broken ships, Pirates, Patients...)

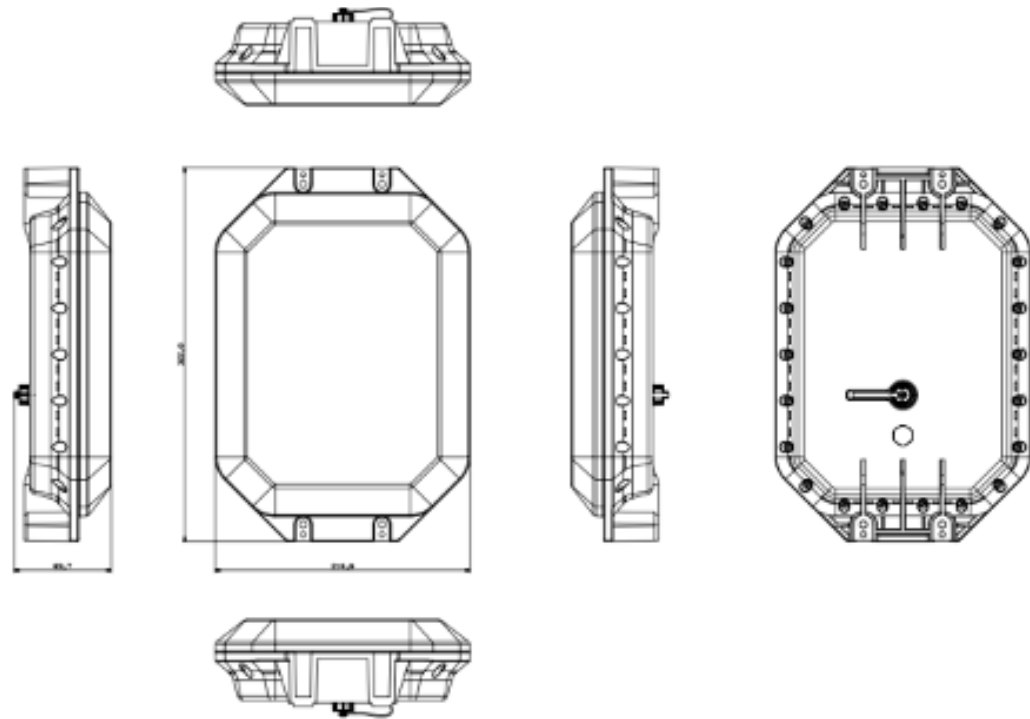
Geographic boundaries crossing alert

Low battery

Overspeed

# ▶ OUTDOOR DEVICE (S-TRACKING TERMINALS)

## KEY FEATURES



## Optimized design

- Compact device, easy to use and install
- Good impact resistance and durability in harsh marine environments
- Stable operation at 1.5m depth
- No need for any on-site terminal updates.

S-Tracking terminals use FOTA (Firmware Over The Air)

TEXT

## Global coverage

- Using a hybrid communication system that dramatically reduces reporting costs by using GPRS communication when in coastal waters but while on the high seas seamlessly switching to the Iridium satellite constellation

## No electric power on the ship

- Solar energy only
- Backup PIN is capable of operating independently for 20 days



# ▶ INDOOR DEVICE (S-TRACKING TERMINALS)

## KEY FEATURES



The S-Alarm device is installed in the cockpit. Its main function is sending/receiving alerts to/from the fisherman through lights and sounds

## Describes

- Empty power indicator light Outdoor Device
- Display indicator light with message
- Display warning lights for crossing the border
- Display the Bluetooth disconnection indicator light
- Empty power indicator light Indoor Device
- Button for rescue (SOS)



# ▶ APPLICATION ON SMARTPHONE

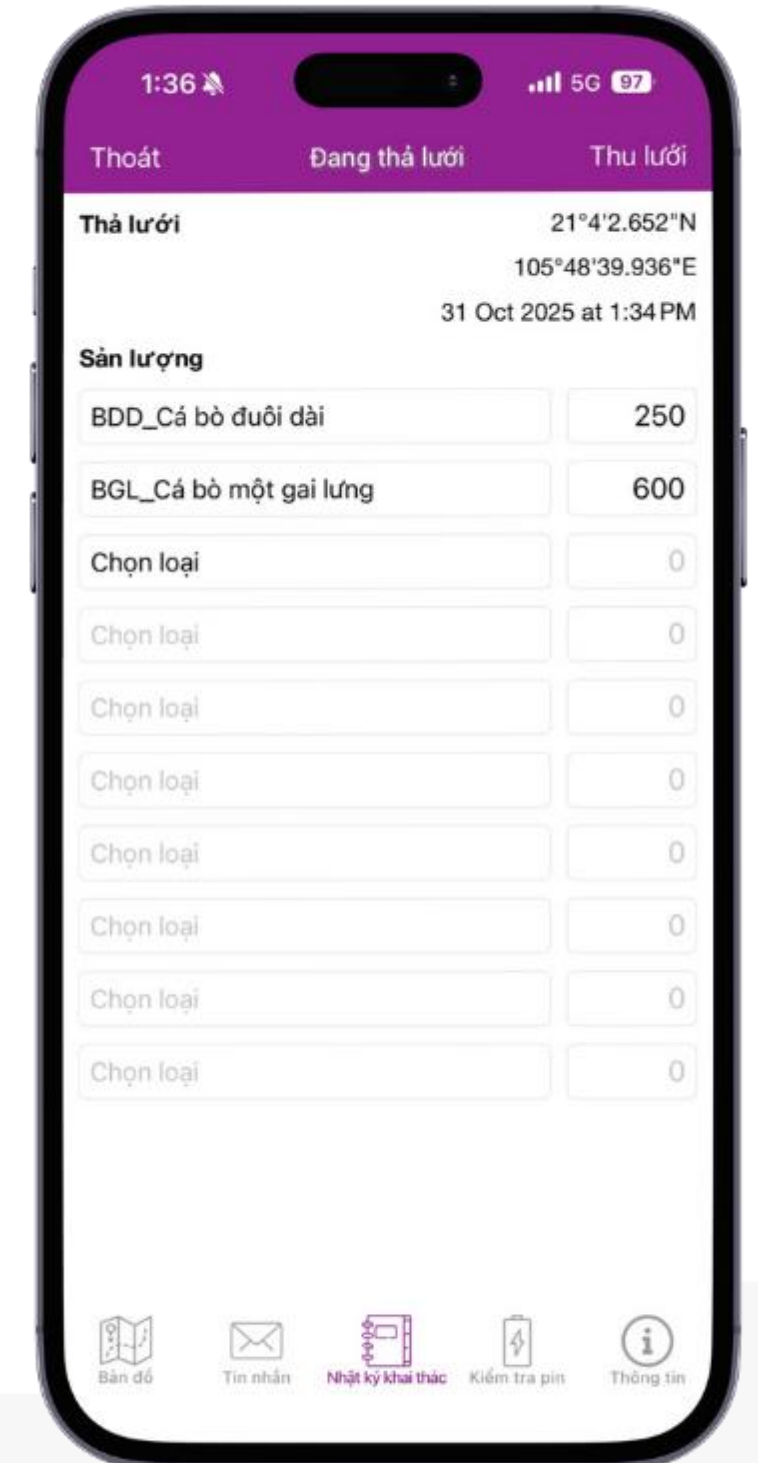
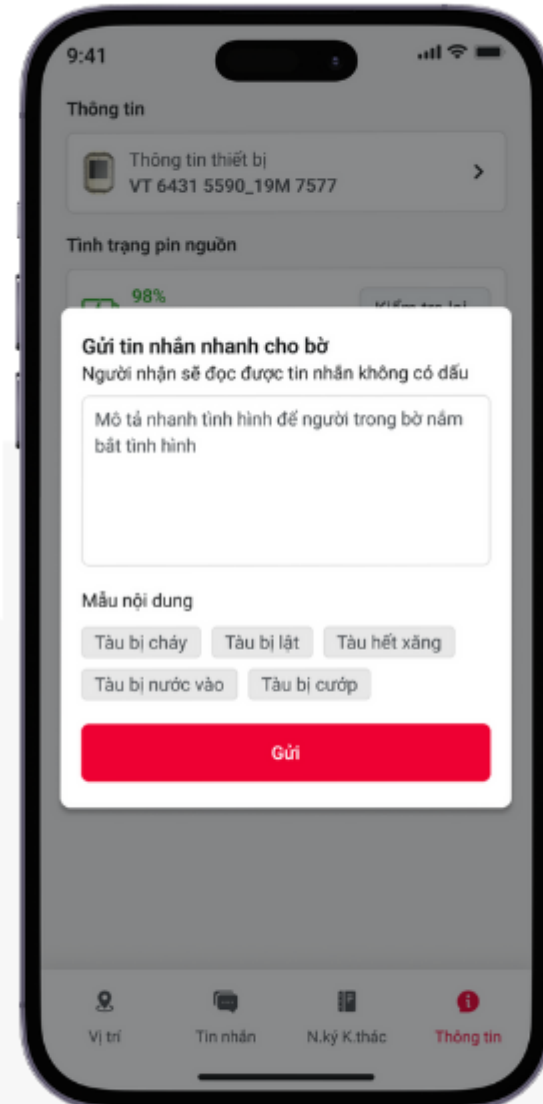
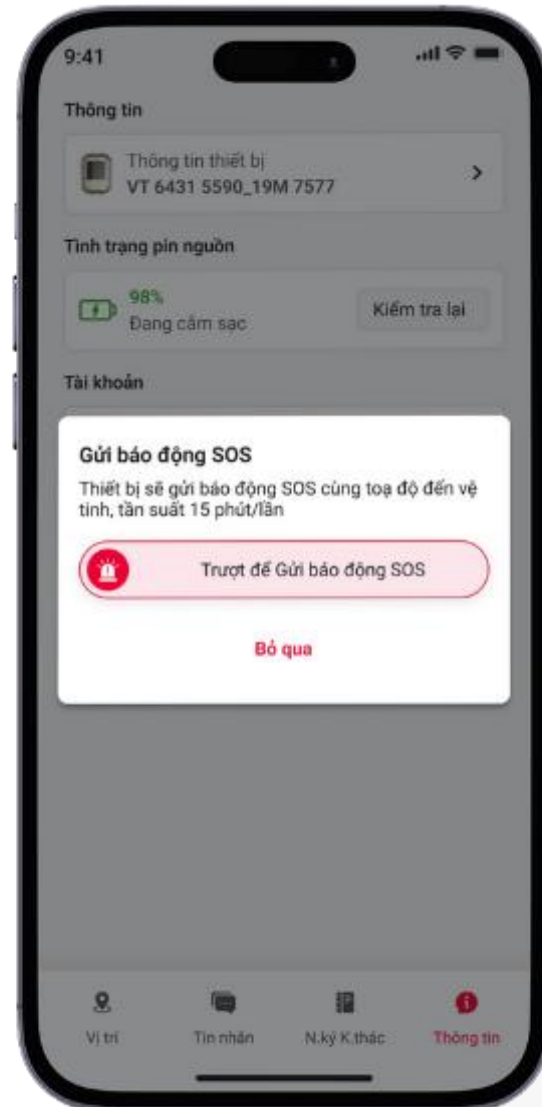
## KEY FEATURES

### Electronic fishing log

The application on the phone sends the catch log to the system, with an easy-to use interface

### Emergency warning message

- The system automatically sends emergency messages to the phone numbers of relatives and onshore management agencies, ensuring quick rescue activities for people on board
- 2-way message support system between ship and shore, ensuring smooth communication between fishermen and relative



## ▶ AWARDS

01

- "The S-Tracking vessel monitoring and management system" was voted as an outstanding product in the **TOP10 Sao Khue 2021**.

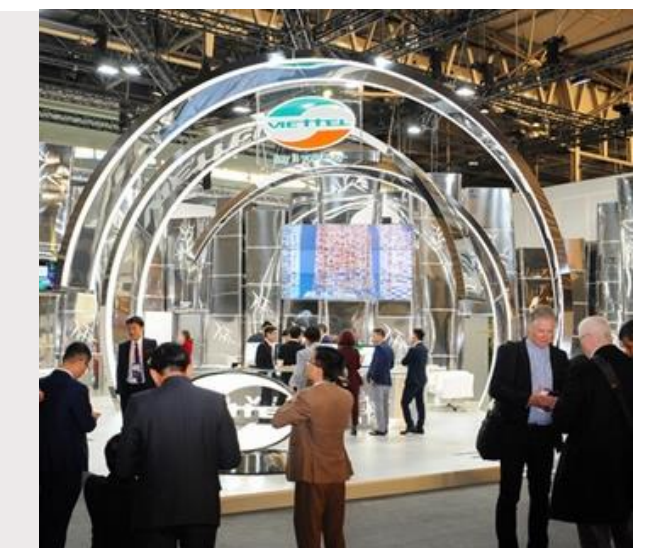
Thiết kế và hệ thống quản lý tàu thuyền S-Tracking

Đã vinh dự nhận giải thưởng chung tay xây dựng Giải thưởng Sao Khuê 2021 với 48 thành viên Hội đồng, Top 10 Sao Khuê 2021 cho Thiết bị giám sát và hệ thống quản lý tàu thuyền công nghệ cao Viettel (VHT) tại lĩnh vực: An ninh, an toàn, cảnh báo thiên tai.



02

- S-Tracking is one of the four digital technology solutions for fishermen introduced by Viettel at the **2019 Mobile World Congress (MWC)**.




02

04

# ▶ ACTUAL INSTALLATION IMAGES

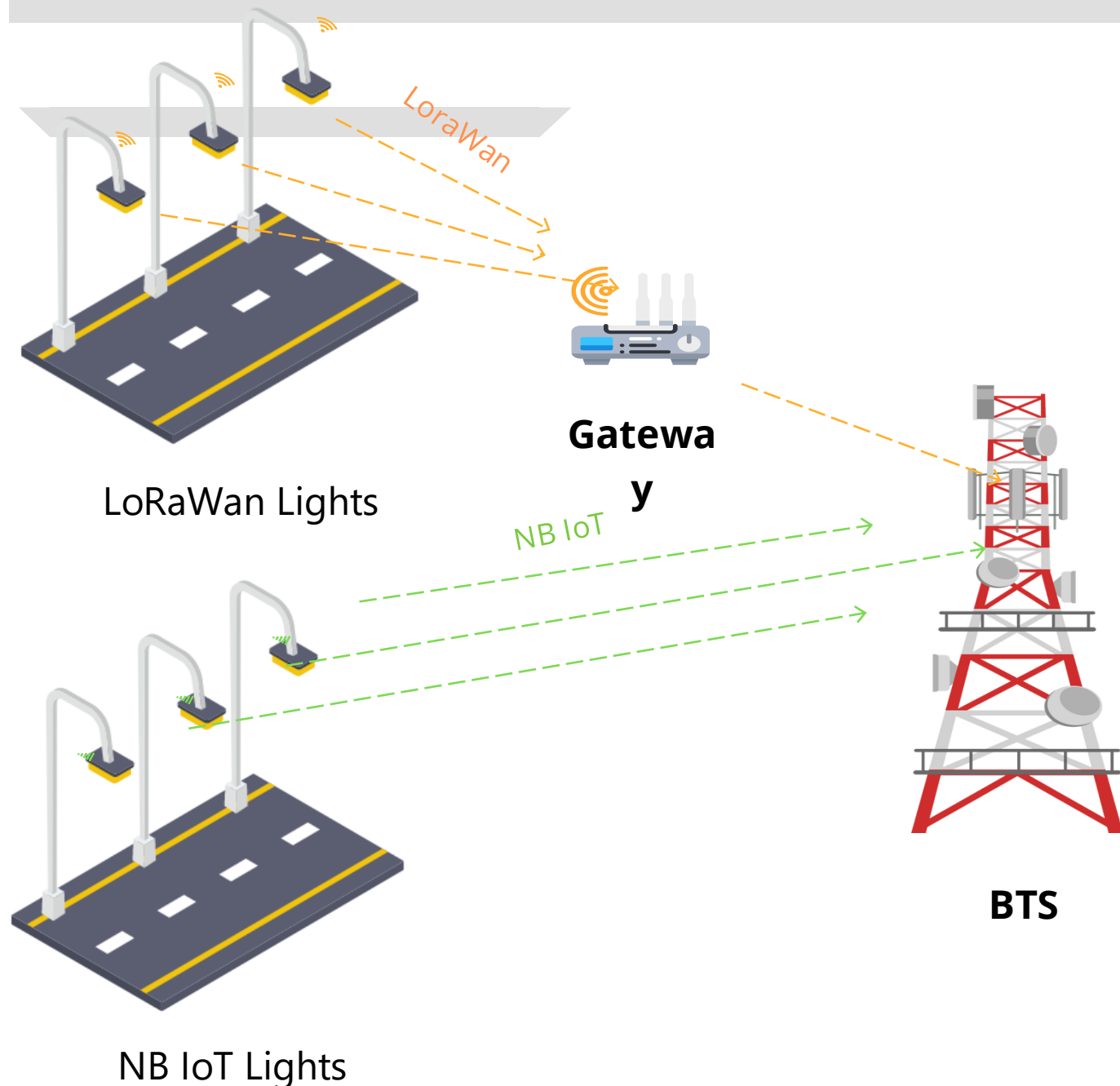




**Smart Lighting**  
**Smart Metering**  
**Environment Monitoring**  
**Smart Farm**

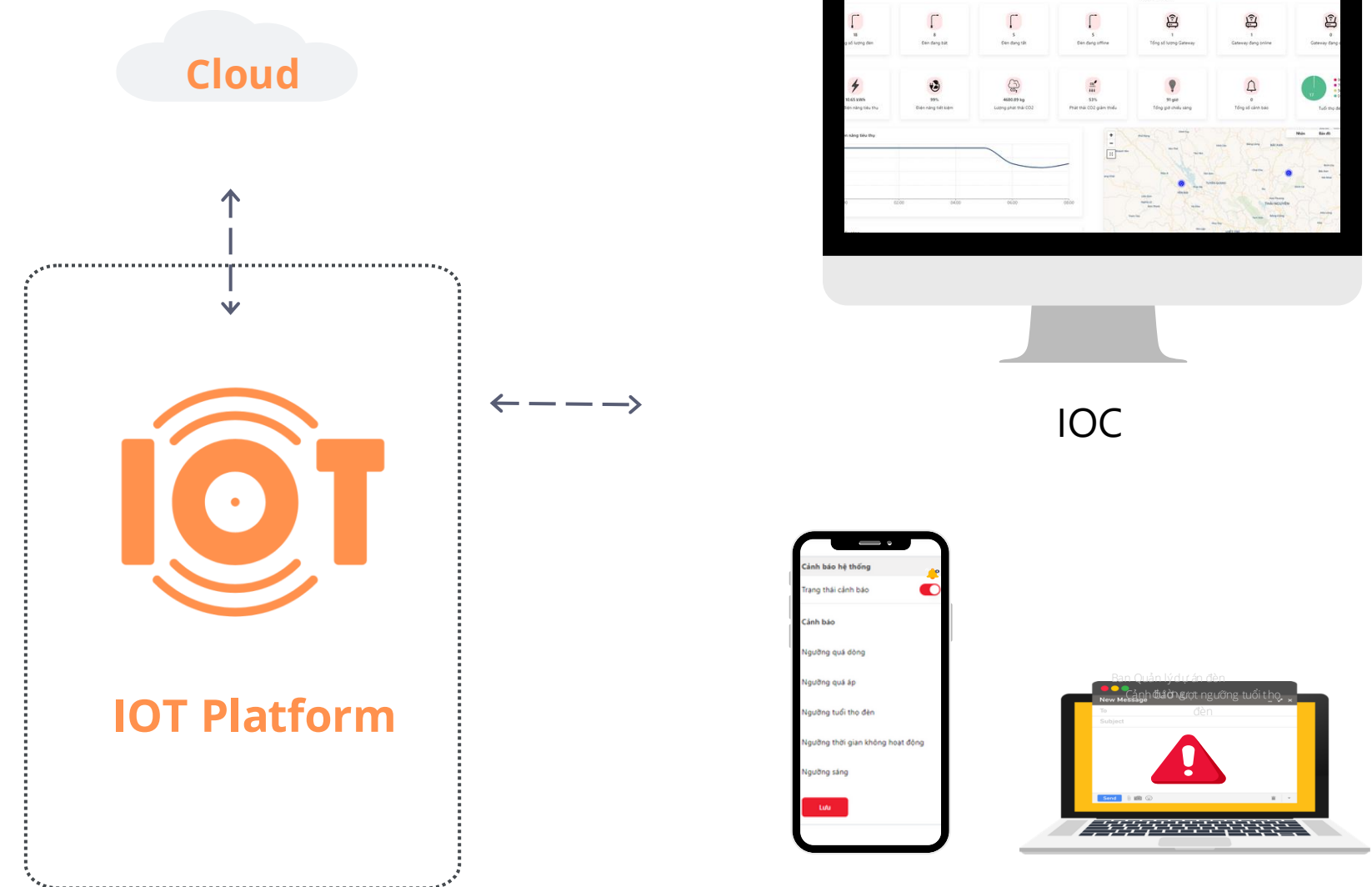
# ▶ SMART LIGHTING

The smart lighting solution is innovative lighting technology for city. It allows the city to automatically control the lighting system to save energy, reduce cost & waste and ease maintenance.



## FEATURES

- Remote control of smart lights
- Setting up smart contexts to automate the lights.
- Giving statistics of all numbers of light at different status by visual charts.
- Viewing lights status on map
- Giving alerts when there are anomalies
- ...

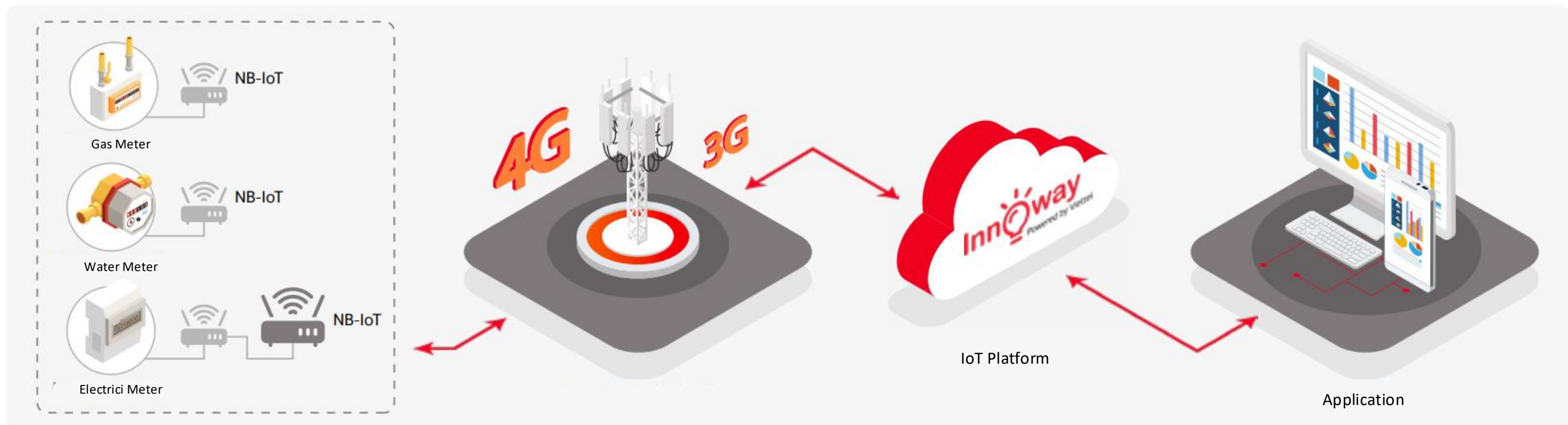


Alerts by SMS, Call, Email

# ▶ SMART METERING

## FEATURES

- Smart water meter: This is an energy-efficient device with a daily or hourly message sending cycle, allowing users to monitor water usage, receive alerts for abnormal fluctuations, magnetic issues, pipe bursts, water leaks, or water depletion. Additionally, property managers can remotely manage total water consumption and reset the meter without the need for regular monthly meter checks.
- Smart electricity meter: The system provides automatic and remote measurement of electricity usage, connection and disconnection of services, fraud detection, outage identification, and isolation, as well as voltage monitoring.

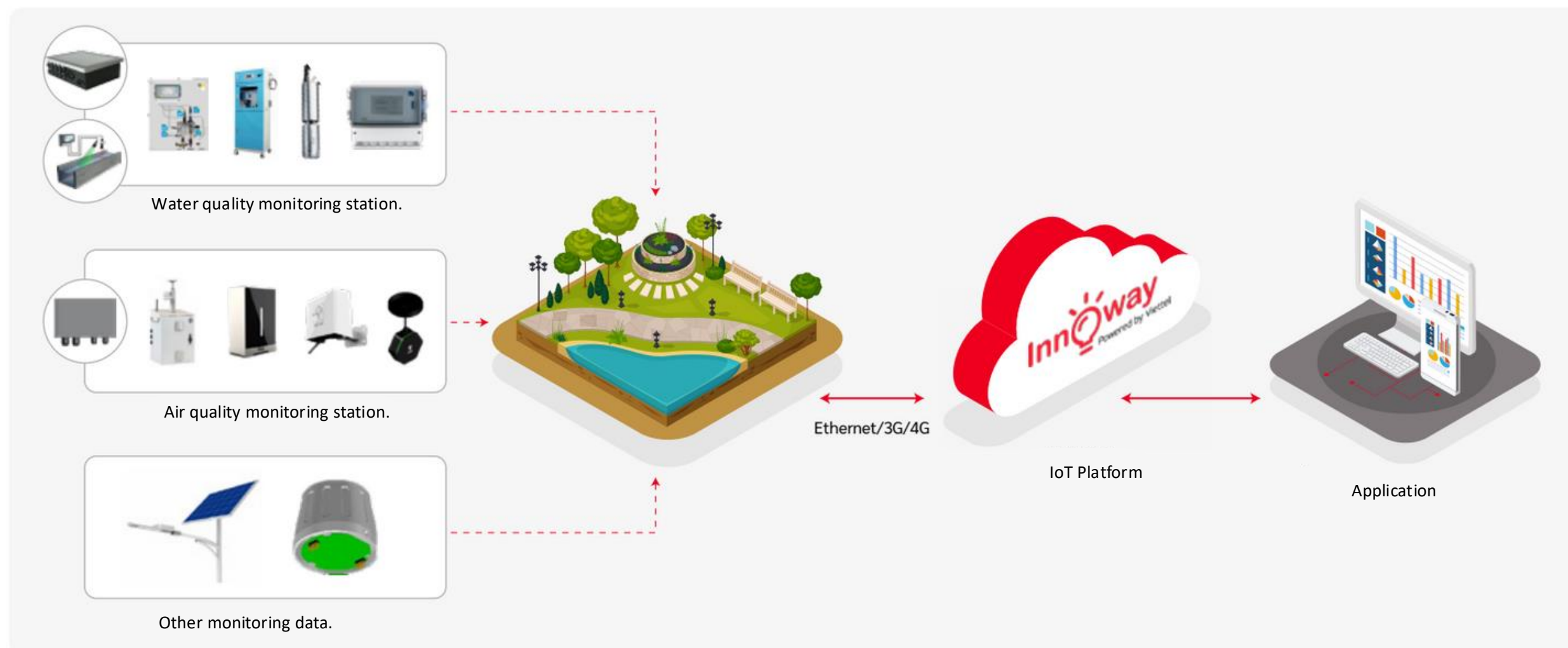


## ▶ ENVIRONMENTAL MONITORING

The applications of IoT in environmental monitoring are extensive - protecting the environment, monitoring harsh weather conditions, ensuring water safety, safeguarding endangered species, commercial agriculture, and more. In these applications, sensors detect and measure various environmental changes.

### FEATURES

- Support for expanding to accommodate different types of devices.
- Support for expanding business functionalities through a web admin interface.
- Real-time monitoring and control of devices.
- Automatic scheduling and environmental condition-based control.
- Statistical analysis and alerts.

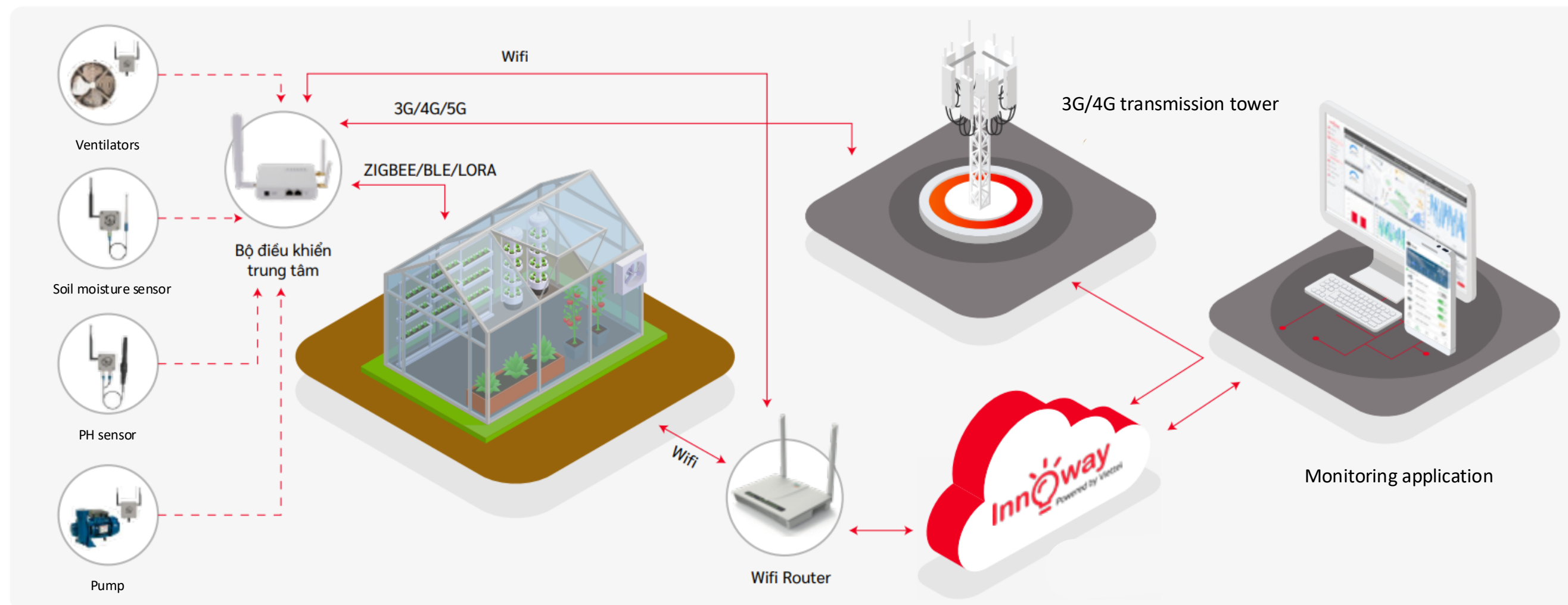


# ▶ SMART FARM

The smart farm system will revolutionize farmers' capabilities in water and energy conservation, reducing land and chemical waste, improving crop yields, and lowering equipment maintenance and labor costs.

## FEATURES

- Support for expanding to accommodate various types of devices.
- Support for expanding business functionalities through a web admin interface.
- Real-time monitoring and control of devices.
- Automatic scheduling and environmental condition-based control.
- Statistical analysis and alerts.
- Chatbot support.





### VHT-BLE-ZIGBEE-GW

- Support for multiple protocols such as BLE 5.0, Zigbee 3.0, and compatibility with most smart home devices from Rạng Đông, Tuya, Điện Quang, etc.
- Remote control, contextual control, and automatic control of devices via the VHome app.
- Stable connectivity for up to 128 smart home devices.
- Security features.



### VTAG - PERSONAL TRACKING DEVICE

- Manage multiple tracking targets.
- Real-time positioning.
- View movement history (within 6 months).
- Dangerous situation alerts and notifications when leaving safe zones.
- Dust and water resistance according to IP65 standard.
- High security features.
- Equipped with an accelerometer sensor (journey/movement alert).



### Salinity measuring device.

A salt measuring device, accurate and stable, continuously measures changes in water level, water temperature, and salinity.

Technical specifications:

- Temperature: range from 0-70°C, accuracy of 0.1°C
- Electrical conductivity: measuring range of 0100,000μS/cm, accuracy of ±0.5%
- Depth: measuring range of 021/70/210m, accuracy of ±0.05%FS.



### AIR QUALITY MEASURING DEVICE.

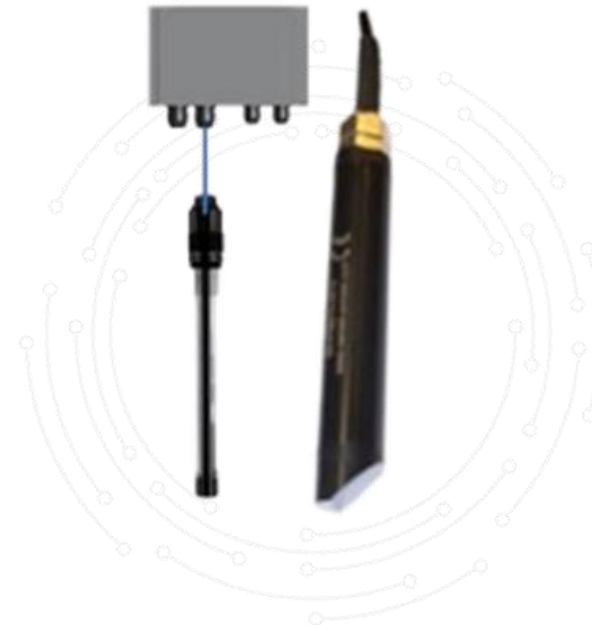
- A multi-parameter air quality monitoring device: Temperature, Humidity, Fine Particulate Matter PM2.5, Coarse Particulate Matter PM10, SO2, CO, NO2, O3, UV, noise level.
- Real-time monitoring of air quality data and meteorological indicators, used in various environments such as industrial areas, construction sites, etc.

## ▶ DEVICES



pH/ Temperature measuring device.

- Temperature: range from 0-70°C, accuracy of 0.1°C.
- Electrical conductivity: measuring range of 0-100,000  $\mu\text{S}/\text{cm}$ , accuracy of  $\pm 0.5\%$ .
- Depth: measuring range of 0-21/70/210m, accuracy of  $\pm 0.05\% \text{FS}$ .



WATER QUALITY MONITORING DEVICE.

- Measured indices: pH, Temperature, TSS (Total Suspended Solids), DO (Dissolved Oxygen), EC (Electrical Conductivity), COD (Chemical Oxygen Demand), Salinity, Level.
- Analytical indices:  $\text{NH}_4$  (Ammonia), Heavy Metals, etc.



Temperature and Soil Moisture Measuring Device.

- Temperature and soil moisture measuring device, along with relevant parameters, applied in agriculture, aquaculture, and livestock sectors.
- Continuous data collection, analysis, and alert system.

## DEVELOPMENT KIT

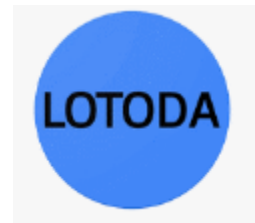


SMART HOME DEV KIT



TRACK AND TRACE DEV KIT

# ▶ SERVICES WE CAN OFFER



Solution Consulting & System Integration



Devices Sourcing & Vendors Mapping



Coverage, Connection Optimization




Application Customization




Co-creation, Co-seller



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