# Corporate Overview

*From habit to economic*

Automotive ICT Product & Service Company

jastecM

01
Chapter

# Summary

Corporate Overview
Market Needs
Solution : Business area
Online Showcase

# About JastecM



## JastecM Co., Ltd.

| | |
|---|---|
| CEO | Yongbeom Baek |
| Founded | July 6, 2016 |
| Capital | **61,522 USD**(Current)<br>*Fundraising in Apr. 2019 (1,799,856 USD) & Jan.2021 (449,721 USD) / **Pre-Series A - 2,249,577 USD in total**) |
| H .Q | PDC C-402, 242, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea |
| US Branch | JastecM USA, LLC 3003 N. First St., Suite 336, San Jose, CA 95134 |
| Websites | Corporate – jastecm.com / Service - viewcar.net |

# History



| | |
|---|---|
| **2022** | • Office relocation<br>Seongnam Global Convergence Center , Gyeonggi-do, Republic of Korea |
| **2021** | • Selected as a development company for innovative growth engine project of garbage pickup monitoring system<br>• IR Demo-day excellence prize awarded<br>• POC project agreement on auto residual value appraisal solution with KB Capital & KNICC Korea National Industrial Convergence Center<br>• Selected as a future automotive specialized company from KOSME (Korea SMEs and Startups Agency) and consulted with P3-Group<br>• Participating in development of 'Indoor & outdoor seamless positioning system international standard development project' for Korea Standard Development R&D |
| **2020** | • Nominated & awarded as the best IP-R&D company (Korea Intellectual Property Strategy Agency)<br>• Nominated as the company with excellent performance for data voucher project 'Waste pick-ups monitoring solution' (Korea Transport Institute)<br>• Nominated as the best industry integration company (Ministry of Trade, Industry and Energy) |

# History



| | |
|---|---|
| **2019** | **Nominated as the export frontier enterprise (Governor of Gyeonggi Province)**<br>**Selected for Governmental R&D project – US device and platform development (Ministry of SMEs and Startups)**<br>**Import started to US clients with Sprint**<br>**Capital fund raised by1,799,856 USD (Pre A)**<br>Waste pick-ups monitoring solution (City of Bucheon)<br>Vehicle monitoring and car sharing solution for Star-Mobility and other rental corporates |
| **2018** | **Master Purchase Agreement with Sprint (Million/yearly)**<br>Electrical delivery vehicle monitoring device (Korea Post)<br>Carbon emission monitoring device for C-point service (Korea Environment Corp.)<br>Energy efficiency monitoring device and service (Korea Transportation Safety Auth.)<br>Commercial vehicle management system (Hanwha Total)<br>B2B2C FMS device and service (SK Telecom) |
| **2017** | Connected car platform business (SK Telecom)<br>Technical development project (SK Telecom)<br>**Connected Vehicle Platform project (Sprint)**<br>**Nominated as the '2017 Export leading company' (KOTRA)** |
| **2016** | K-Global Smart Mobile R&D (Ministry of Science and ICT<br>Acquired research facility accreditation (Korea Industrial Technology Association)<br>Nominated as the best R&D entrepreneur (Ministry of SMEs and Startups)<br>**Merger between vehicle Inspection specialist Jastec Co., Ltd. and platform development corporate Infinityplus Co., Ltd.** |

# Research & Development

| | |
|---|---|
| **Development** | • Vehicle-IoT wireless network(3G/LoRa/LTE/LTE-M) connected device<br>• Firmware for vehicle sensors, GPS, Gyro/G-Sensor, Bluetooth<br>• Restful Open API for 3rd party business<br>• ViewCAR™ (Application & web service) for end user |
| **International Standards**<br>**(Standard Essential Patents)** | **ISO / TC 204 WG17 standards in progress**<br>• Emergency call feature related standard — ISO published (Dec. 2020)<br>(ISO 20530-1 Information for emergency service support via Personal ITS station)<br>• Micro e-vehicle relate standardization work in progress<br>(Nomadic device service platform for micro mobility)<br>• Proposed emission monitoring standard<br>(Extracting trip data via nomadic device for estimating CO2 emissions)<br>• Proposed indoor & outdoor positioning based on sensor fusion method<br>(Seamless positioning for multimodal transportation in ITS stations) |

# Certification & IP's



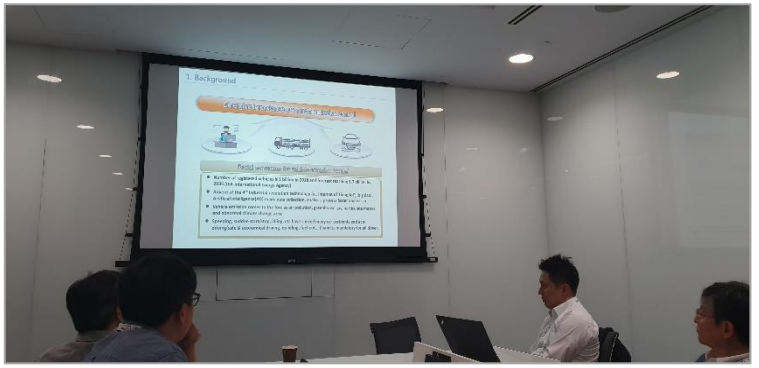
| Certification | Model | Certification No. |
|---|---|---|
| FCC | JTBT-1100 | UK4JTBT1100 |
| FCC | JTBT-2100 | UK4JTBT2100 |
| FCC | JTWF-1100 | UK4JTWF1100 |
| FCC | JTCM-1000 | UK4JTCM1000 |
| FCC | JTGM-1100 | UK4JTGM-1100 |
| FCC | JFCM-1000 | UK4JFCM-1000 |
| KC | JTBT-1100 | KCC-CCM-JS0-JTBT1100 |
| KC | JTBT-2100 | KCC-CMM-JS0-JTBT2100 |
| KC | JTWF-1100 | KCC-CCM-JS0-JTWF1100 |
| KIDI | JTBT-2100 | KIDI-11-07 |
| KIDI | JTUB-1000& | KIDI-18-** |

| Item | IP No. | Title |
|---|---|---|
| Trademark | 4500481620000 | ViewCAR™ |
| Patent | 10-1382498 | System and method for motion-sensing automotive airbag systems |
| Patent | 10-1618118 | BCM Control system with external device |
| Patent | 10-2074905 | Apparatus for processing vehicle information |
| Patent | 10-2020-0188585 | Vehicle price estimating method (Korea & US) |
| Patent | 10-2021-0032244 | Information exchange system with messenger display (Korea & US) |
| Patent | 10-2021-0041415 | Indoor and Outdoor continuous positioning switching method (Korea & US) + Many others |
| Copyright | C-2016-008356 | VDAS(Vehicle Driving Analysis System) |
| Certification | 881 | Location based business |

# Overseas Activities



- Been participating in many ISO meetings & trade shows (TechCrunch, Melbourne ITS conference and ISO TC204)
- A registered expert of ISO TC204 WG16 / WG17 and published ISO 20530 as a proposer (Dec.2020)



# Market Needs





## A new era of 'Data / Network / AI' service & product based on IoT
## Lack of asset & safety management systems in mobility industry

### Why mobility market needs our service & product?

**Corporate**

- **Asset management (Company cars)**
  - Increasing fuel cost , Preventing private use of company cars
- **Adjustment number of vehicle**
- **Vehicle health & repair management**
- **Increasing accident rate of company car** (5x higher than private vehicle)
  - Driver monitoring (Speeding · accident etc.)
- **Delivery or On-site repair service improvement**
  - Tracking drivers, task monitoring
- **Lack of fleet operating cost management system**

**Individual Customers**

- **Safe driving & efficient vehicle management**
- **Vehicle breakdown prevention, operating cost cutting** (Insurance)
- **Unfamiliar with connected car service**
- **High price of vehicle OEM's connected car service**

- Service subscription rate: Under 5% (Hyundai Bluelink, KIA UVO etc.)

### New business models

- **UBI (Usage based Insurance)**
- **In-vehicle payment**
- **EWI (Extended Warranty Insurance)**
- **O2O (Online to Offline)**
- **Car depreciation analysis**
- **V2V communication**

# Solution : Business Area





JastecM has **vehicle-IoT device** & **platform** for **mobility big-data business.**

## 01 Vehicle-IoT Device Develop & Manufacture

**“Secure business flexibility with modular design”**

- Vehicle Sensors from all vehicle models
- G-sensor, GPS on board
- BCM control engineering
- Supports all networks (LoRa, 3G, LTE)

## 02 Data Platform Service

**“Optimized data platform for various development environment”**

- Flexible service structure with various sensor data
- Data search by timetable/specific Item
- Restful API provided per service model
- Development kit provided

## 03 Presentation Layer Service

**“Vehicle-IoT Convergence service such as FMS, O2O, UBI, EWI”**

- App & web service for vehicle admin & driver
- Driving behavior analytics & scoring service
- Location based service and diagnostic based service
- Auto insurance & O2O service

# Online Showcase

02
Chapter

# Products

Tech : Product overview
von-Series features
North America models
Global models
von – P series
Connected Car service platform
ViewCAR™ Web
Mobile app service
Mobile app features

# Tech : Product Overview



JastecM already set up **API service structure** from device to platform.

## ICT Device

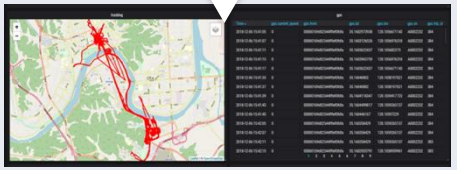
OBD II standard protocol based vehicle data gathering technology

- 3G/GSM
- LTECat.1/M1/Cat.4
- LoRa
- OBD-II Standard Interface
- OEM PID

**Device API**

## Vehicle Platform

Converting various vehicle sensor data gathered from OBD device as per platform specification

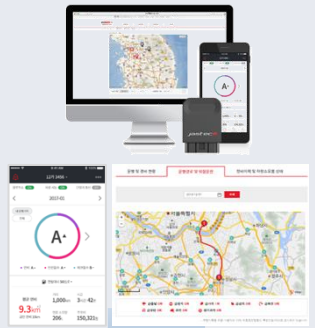


- Tool
- MQTT
- OS
- OEM PID (Unix, Linux, Windows)

**Restful API**

## Presentation [ViewCAR Service ]

Service level interface in app/web based on telemetry data platform



**Server API**

# Key Features of von Series



von-Series

## Robust Network

- Wi-Fi hotspot connection
- Network out of coverage solution
- Secured, Device specific FOTA

## Secured Device

- Secure Boot/Secured Network Protocol against car hacking
- Agile OBD-2 issue Management
- Battery Drain Protection

## Reliable Metrics

- Precise GPS, Accurate Vehicle Metric
- Various Wake up Scenario
- Remedy for Network out of coverage

## Customizable Configuration

- External Interfaces for Other Devices
- Cooperative with backup platform
- Script support (Radio Packet, Customization, Simulation, Provisioning)

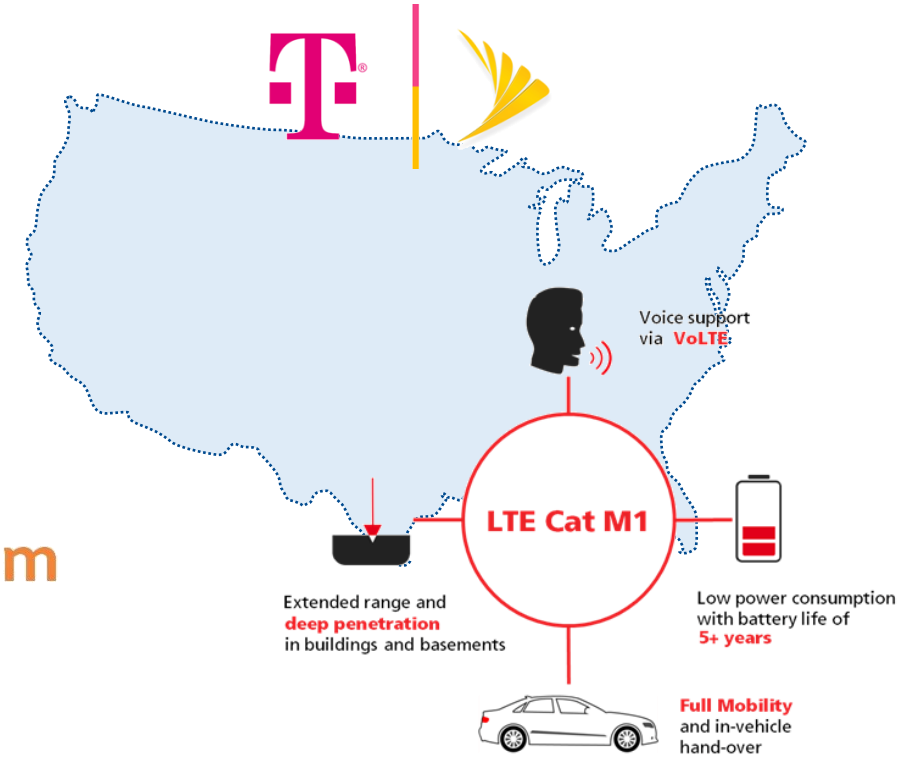
# North America Models LTE Cat.1 Device

von-U41

**Launched (05.2019)**

- T-Mobile network-based LTE Cat.1 device for U.S. connected car market.
- **JastecM and Motus has prepared to launch vehicle reimbursement service for Coca Cola, Papa John's Pizza and CVS in 2020**, but it's been delayed due to pandemic impact on Rental Car industry in US.

# Global Model LTE Cat. M1 Price competitive device (Global roaming)




## von-S51

**KOREA certified (05.2021) & To be certified in US (Q3.2021)**

- LTE Cat.M1 **(Global Band)** device to find more global business opportunity.
- Price competitive with **low data usage** of Cat.M1

# Global Model

LTE Cat. 4 Connected Car device

## von-U61

**Certified & Launched (05.2021)**

- von-U61 is to expand driver's experience in vehicle by interconnecting to various connected car features.
- von-U61 connects to multiple devices such as ELD*, ADAS, AI specker, dashcam etc.

**※ Wi-Fi Hotspot available to connect with commercial vehicle's ELD, Driver status monitoring and FMS etc.**

* ELD: Electronic logging device that is mandatory for commercial vehicle in US to record driving time & hours.

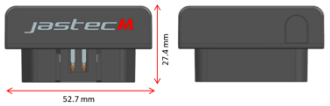
## Products for network out of coverage area (Jungle/desert) & Doosan Infracore Co., Ltd.

### von-P10 Series (Basic)

#### von-P 11

**Basic** Acts as a client which gathers essential vehicle data (Driving summary, G-sensor, vehicle condition)

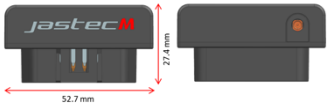
- Serial : RS232
- Wi-fi : IEEE 802.11 b/g/n
- Bluetooth : BT EDR / BLE v4.2
- G-Sensor: BMI 160 (6-axis)




#### von-P 12

**Basic+ Wi-fi External Port** Acts as a client which gathers essential vehicle data (Driving summary, G-sensor, vehicle condition) + external port available for Wi-fi antenna1

- Serial : RS232
- Wi-fi : IEEE 802.11 b/g/n
- Bluetooth : BT EDR / BLE v4.2
- G-Sensor : BMI 160 (6-axis)
- ※ External port for Wi-fi antenna

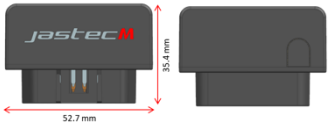



### von-P20 Series (USB Onboard)

#### von-P 11

**USB Onboard** USB host board is added to interlock with another connected device

- Serial : RS232
- Wi-fi : IEEE 802.11 b/g/n
- Bluetooth :BT EDR / BLE v4.2
- G-Sensor : BMI 160 (6-axis)
- USB Host Board

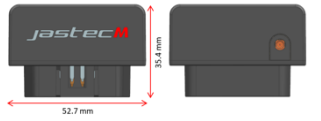



#### von-P 12

**USB + Wi-fi External Port** USB host board is added to interlock with another connected device + external port available for Wi-fi antenna

- Serial : RS232
- Wi-fi : IEEE 802.11 b/g/n
- Bluetooth : BT EDR / BLE v4.2
- G-Sensor : BMI 160 (6-axis)
- USB Host Board

※ External port for Wi-fi antenna



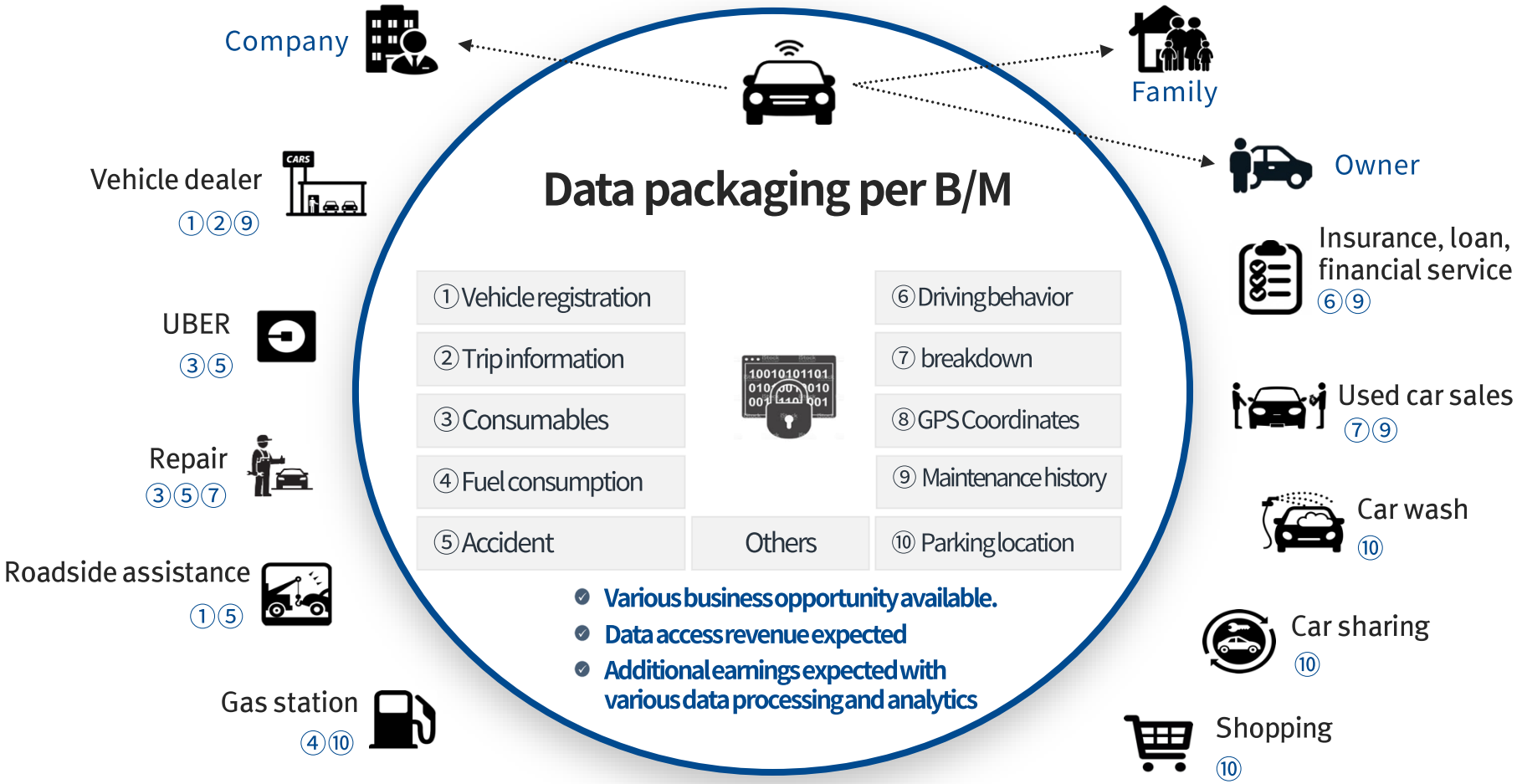
# Features of Platform Service

Vehicle service models based on 'Shared Data'



## Data collected based on user verification & consent of data use

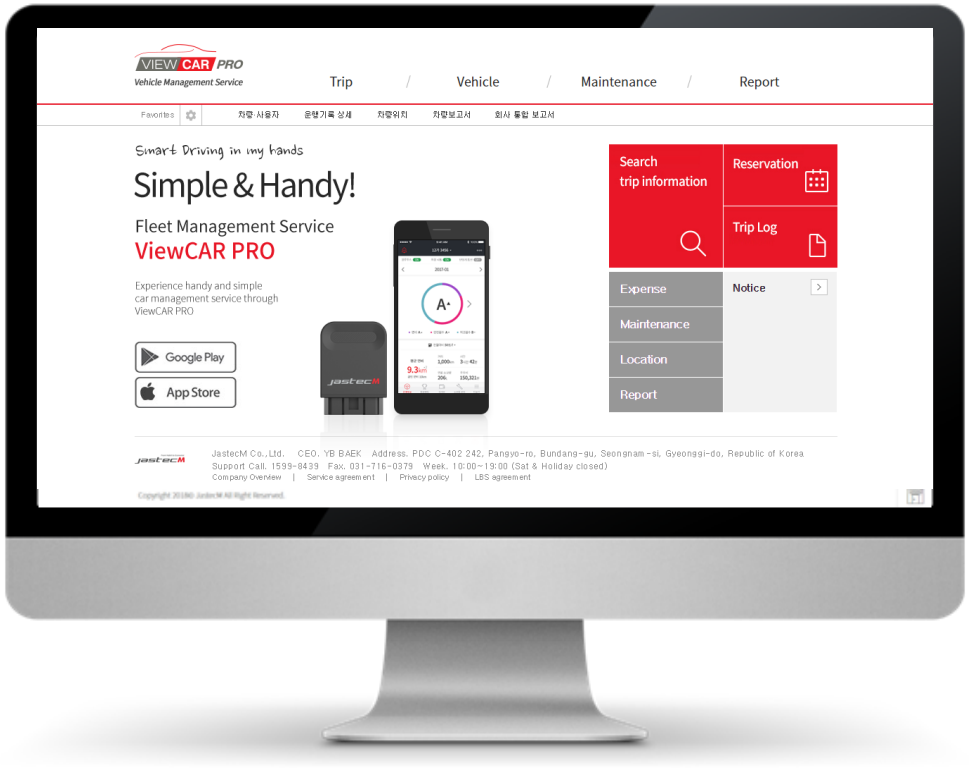
**Up-to-date technology trend**



# ViewCAR™ Web



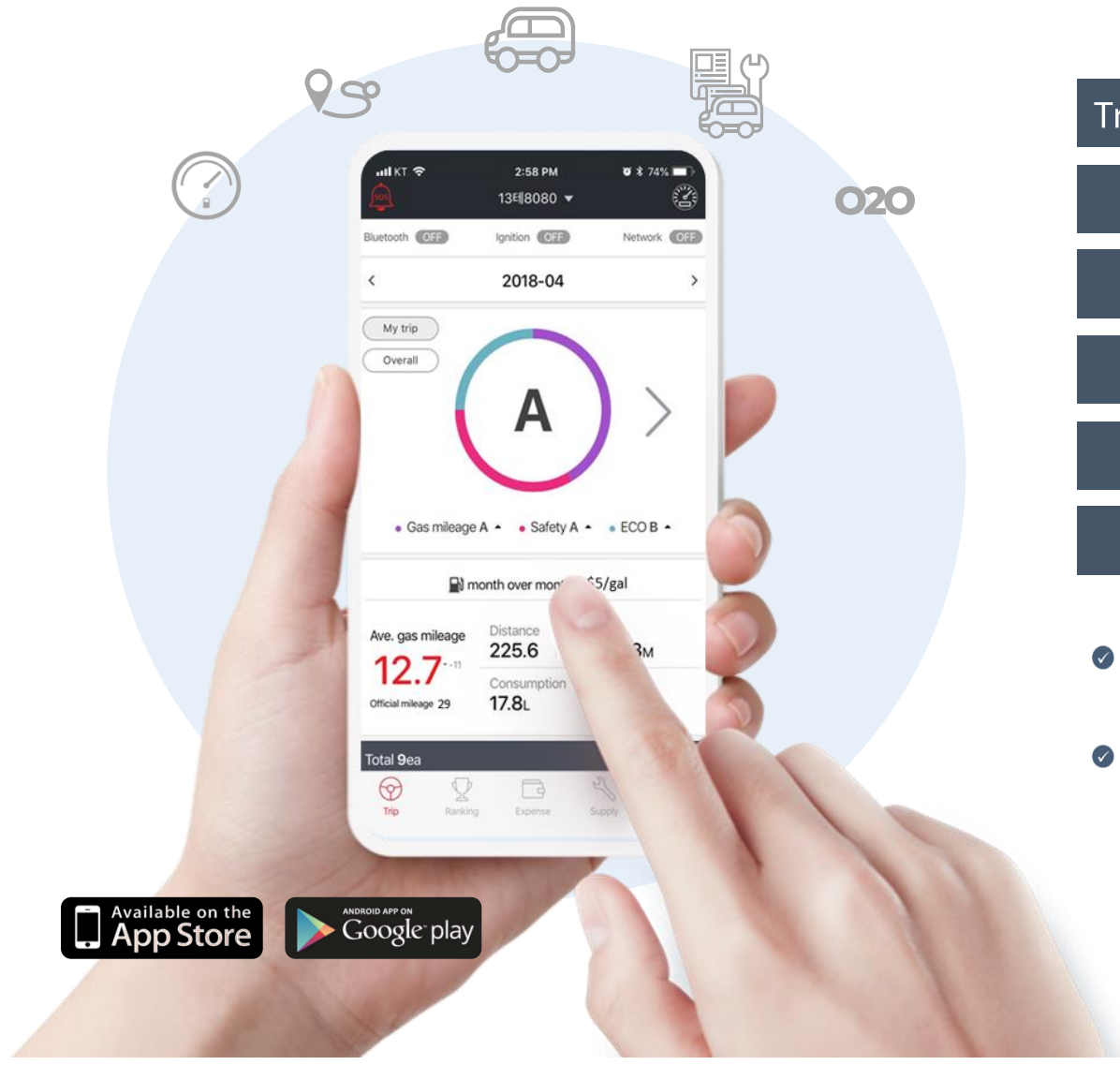
ViewCAR is a tool for gaining an access to vehicle related services as shown below.




- Vehicle use reservation
- Trip route & Event location monitoring service
- Vehicle breakdown monitoring
- Real time accident report

# Mobile App for Drivers






- Trip information (Location, route, event, distance)
- Driving behavior・ Scoring feature
- Tool kit for efficient cost management
- Diagnostics / Consumables management
- Location based even features
- O2O Business

- Trip log management and vehicle use reservation feature for commercial clients
- Vehicle management in detail

# Key Features of Application

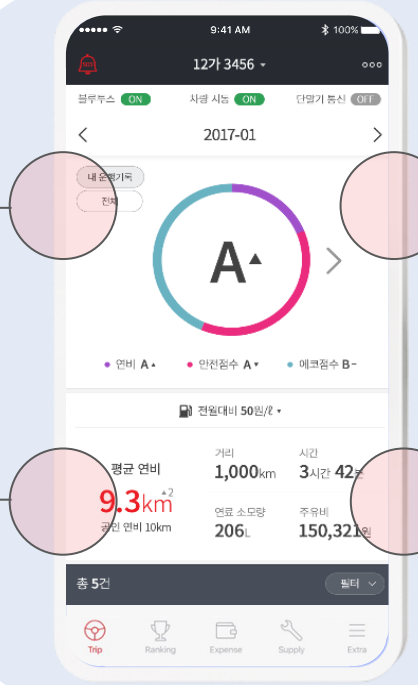


## Safety & Eco Score

Driving score based on OBD metric data (Speed, RPM, Gyro) gathered from a vehicle.

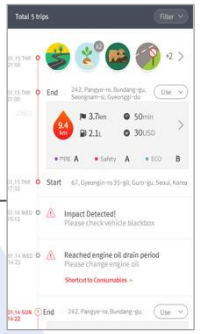
## Hard acceleration & deceleration push notification

Each time a driver accelerates or brakes harshly, a push message is appeared on driver's device.




## Trip summary

The driving history by timeline available. (Mileage, MPG, Time, Route)




## Driving Behavior Analysis

The actual driving patterns of a vehicle operator to identify unsafe practices or policy violations.

03
Chapter

# Business Area

Business Model Overview

Business Strategy Roadmap

# Market Needs



## Flexible • Quick B/M development by customer type (B2B, B2B2C etc.)

### Solution Provider

**Model A)**
Device

agilis systems THE TRACKING COMPANY
SK broadband

**Model B)**
Device + JastecM Platform Integrated

Sonrai Systems
Fantasia BUCHEON
PAPA JOHN'S PIZZA
CVS pharmacy
Coca-Cola
motus

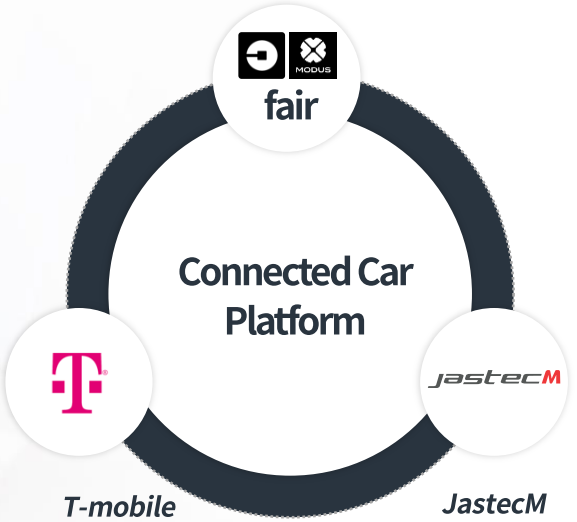
**Model C)**
Device + Client Dedicated Platform

Hanwha
TOTAL

### Service Partner

**Model D)**
Device + JastecM Platform

***Clinets*** *Provide automotive related services*




***T-mobile***
*Provide nationwide wireless connectivity to equipment*

***JastecM***
*Provide operating as well as equipment*

# Business Strategy Roadmap

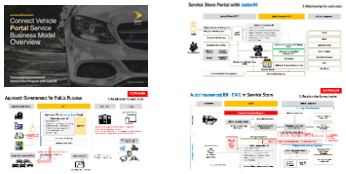


## Build mid & long-term roadmap for market expansion

### Device · Service development & Market test

- **Connected car platform provider in Korea**
  : Hanwha Total, Kakao VX, City of Bucheon, Incheon airport limousine
- **Reliable and trustworthy service**
  : Service delivered to many governmental research facilities (ie, KoRoad, KECO, TS, etc.)
- **Ongoing projects with expandability**
  : PoC with various features (Heavy-duty, Special use, electric vehicles etc.)

### North America Market



- **Breaking into N.A. market**
  : Build a business model with T-Mobile
- **Affiliate programs proposed to transport industry (ie, Uber, motus, Sonrai, etc.)**
- **Projects in progress (Motus, Sonrai, Agilis systems)**
- **Plan to advance into ASEAN market**

### Service Models

- **Various service models based on platform**
  : Usage based insurance(UBI), Extended warranty insurance(EWI), etc.
- **Expecting various business models**
- **Expand business into Europe market**

# Contact Us

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