



INAVI
SYSTEMS. INC



▶ COMPANY INTRODUCTION

I. COMPANY OVERVIEW

II. Technology of INAVI

III. BUSINESS of INAVI

Dash Cam, Navigation No.1 Leading Company



is working to be the **Total Mobility Platform Service Leader in Korea** With our technology and experience of **25years**.

• • Company Introduction • •

NAME	THINKWARE / INAVI SYSTEMS Corporation
CEO	Lee, Heung-Bok / Seong, Deuk-Yeong
Founded	26 March, 1997
Capital	\$4,079,594 (USD)
Number of Employees	510 (FY2020 1Q) - (THINKWARE Group)
Website	http://www.thinkware.co.kr http://www.inavi.com http://inavisys.com https://www.fivepin.co.kr

• • Main Business - H/W, S/W • •

Hardware



GPS Car
Navigation



Dash Cam



Tablet PC

Software



Digital Map



Mobile



AR/ADAS

Engines

DP Engine

- Able for 2D, 3D, aerial photograph-based Full 3D response
- In 3D, able to display building modeling data, elevated roads, terrain elevations
- Available to response for both non-telecommunication type (Local Memory based) and telecommunication type (Server based)

Search Engine

- Available for Integrated Search, Old/New Address Search, Initial Consonant Search, Around-Route Area Search
- Available to response for both non-telecommunication type (Local Memory based) and telecommunication type (Server based)
- In case of telecommunication type, urgent POI update & single update available

Navigation Engine

- Supports basic navigation such as shortest distance, recommendation, and free and reflects traffic information based on TPEG
- In case of communication type, able to search and reflect the real-time traffic information generated every 2 minutes and 30 seconds.
- Available to response for both non-telecommunication type (Local Memory based) and telecommunication type (Server based)

Guide Engine

- Available to response for both non-telecommunication type (Local Memory based) and telecommunication type (Server based)
- Nationwide base map, driving lead support

Real-Time Traffic Information Engine

- Real-time traffic information is generated and serviced every 2.5 minutes without interruption by using real-time driving GPS logs collected from its telecommunication type Navigation, communication type BB, and affiliates.
- In case of our communication type Navigation, the search engine uses this to search traffic information.

Hot Place Extraction Engine based on Visit Score

- Measures and statistics the popularity of 5.8 million POIs provided by the company using logs such as user searches and navigation.
- Currently undergoing a daily update and providing POI additional information to its Navigation and Web services.

ETC.

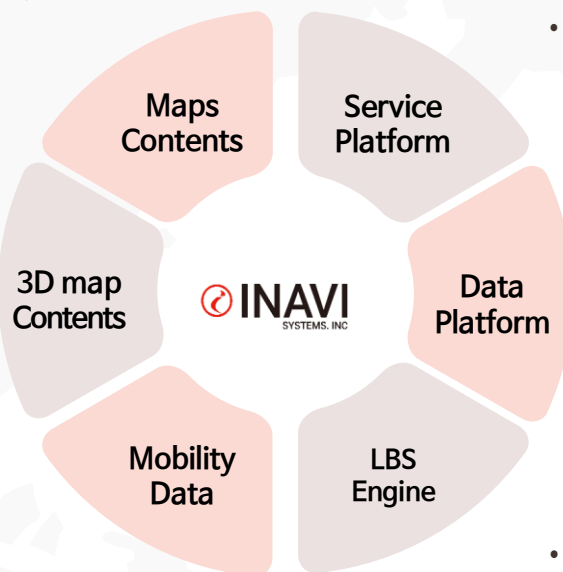
- In case of telecommunication type, able to provide gas price information, EV charging station information, weather information, etc.

Data & Solution

- Navigable road network data(car, bicycle, on foot)
- Dangerous area DB
(anti-jaw, weight/height limit, sharp curve, etc.)
- National map background data
- Safe driving data
- Address information
- Intersection junction schematic

- Landmark building 3D modeling data
- Highway 3D modeling data
- Aerial texture-based aviation 3D data
- DEM/DSM data for terrain/texture

- Dash-cam users' GPS data
- Wireless network based navigation
- Predictive traffic information data
(based on user driving information)



- Real-Time Traffic Analysis Solution
- Predictive Traffic Analysis Solution
- Image tiled MAP API
- Vector tiled MAP API

- RAM(Real time Analysis & Monitoring) Solution
- RTGA(Real Time Geospatial Analysis) Solution
- VS(Visit Score&Rank) Solution

- Road Network Route Engine
- Data Search Engine
- Positino Guidance Engine
- 2D & 3D & Aerial Photograph Display Engine
- Map-Matching Engine(GPS & Sensor)
- Traffic Provide Engine

Platform

- ✓ Having **the most # of Big-data** and the only company having **aerial-map** produced by own.
- ✓ **Developing connected-A/M platform** for connecting car and telecom. companies.
- ✓ **Operating National Bigdata Platform** Transportation Sector.
- ✓ **Building Maps API** with Cloud company, NHN TOAST Inc.
- ✓ **Extending Mobility platform** business such as 'Last-mile-Delivery'.
- ✓ **Expanding the application business** based on our own mobile Navigation app. called 'INAVI AIR'.

Solution

- ✓ Having solution of our **own AR graphic 'Extreme AR'**
- ✓ Equipped with the largest # of ADAS in S. Korea. and have its own **patents at both domestic and abroad.**
- ✓ In progress of **advancing tech. of ADAS**, such as AI-based drowsy driving & sign-board recognition.
- ✓ **Expanding supply** of automotive, commercial, and telecommunicator solutions.
- ✓ **The first company** commercializing products equipped with AR/ADAS solution in S.Korea.

Main features of ADAS



[PCWS]



[FCWS]



[FVSA]



[CSWS]



[TLCA]

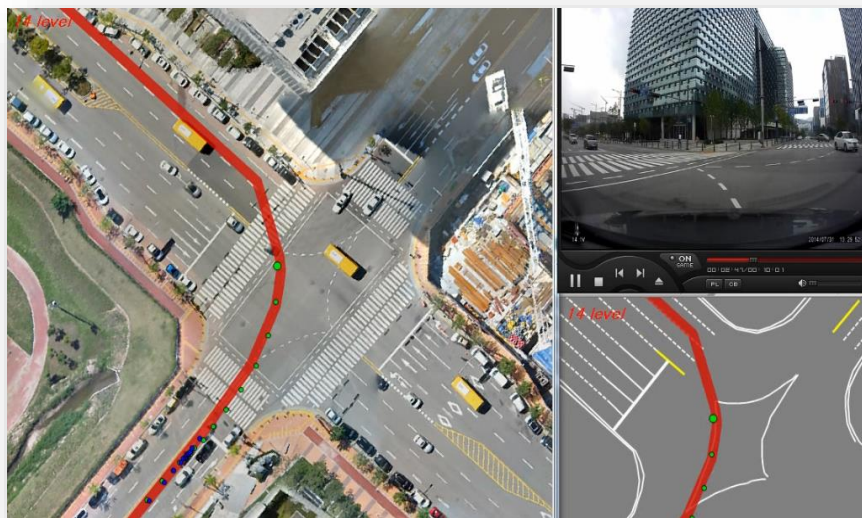


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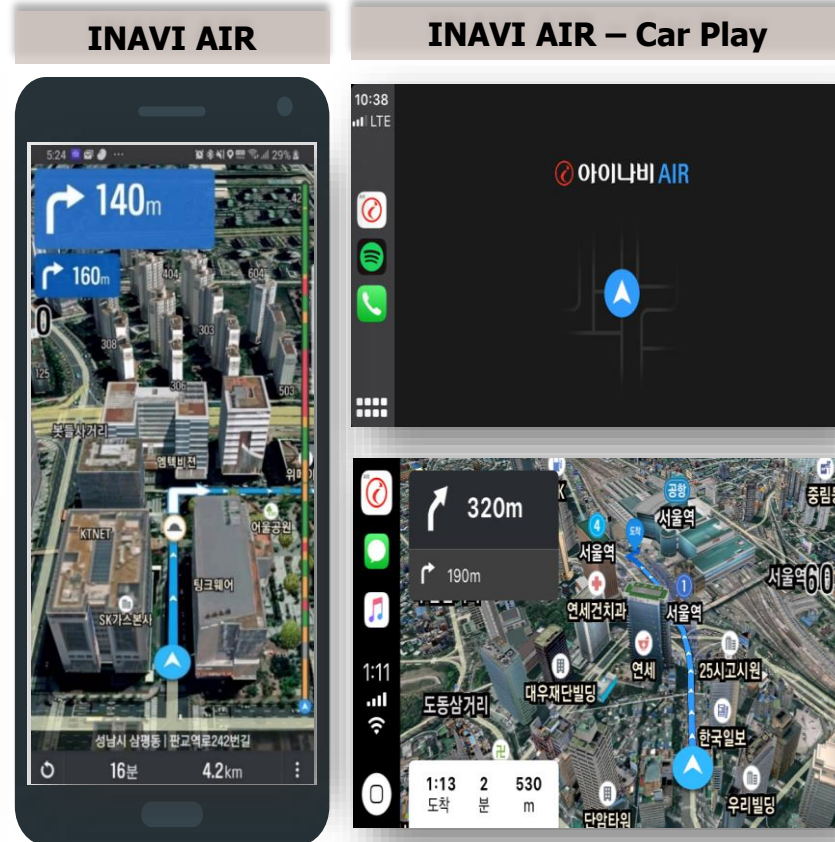
On-Dash / In-Dash (PND)



High Precision Map Data (HPMD)



“INAVI AIR” Mobile APP



- Support Apple Car Play “iNavi Air” with 3D map
- Various modes selectable: HUD mode, navigation mode (supports both 2D and 3D)
- Provide differentiated functions such as air mileage, group driving (location sharing), and open POI

Domestic

- ✓ The #1 M/S of Dashcam in S.Korea
- ✓ Extending new B2B-business-partnership with Car-maker companies.
- ✓ Extending new devices line-up by launching New devices of Commercial vehicle and motorcycle.
- ✓ Commercializing the first “Real-Time Connected Technology” in S. Korea.
- ✓ Building an intelligent connected platform by utilizing AI/Cloud technology

Abroad

- ✓ Exporting to 30 countries , Asia & North America, etc.
- ✓ No.1 Company having advanced Tech of dashcam .
- ✓ Extending B2B business to Mobility market, Car-maker, Rental-car, & A/M market.
- ✓ Supplying to Global supply chains for B2C business.
- ✓ Planning to launch new ‘Connected-service’ by having partnership with local telecom. & Insurance Company.

Best selling line-up



[QUANTUM 4K]



[QXD5000]



[QXDMEGA_4CH]



[Q800 Pro]



[U1000]



[F200]

Our Business Partnership



Manufacturers

- HYUNDAI Motor - Selected preferred partner
- SSANGYONG MOTOR, NISSAN, FORD, etc.
- Renault etc. Map Platform, etc.



Telecommunication Companies

- KT/LGU+
- Provided mobile navigation, map platform S/W
- Designed 5G Architectures



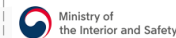
Portal

- Provided Map Data, Real-Time Traffic
- Maps API Center



Government

- Provided Map Data, Map contents
- Operating government ITS Center
- Designed Korea-Standard Guide for ITS (Intelligent Transportation Systems)



MaaS (Mobility as a Service)

- Provided Maps API, Navigation SW and Technologies
- Car sharing, ride-hailing system, mobility sharing services etc.



[Contact Information For **Strategic Business Alliance**]

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We are **always prepared** to be your partner.

Thank you!

