

Train Safe driving System / Management Information System

2020.10.01

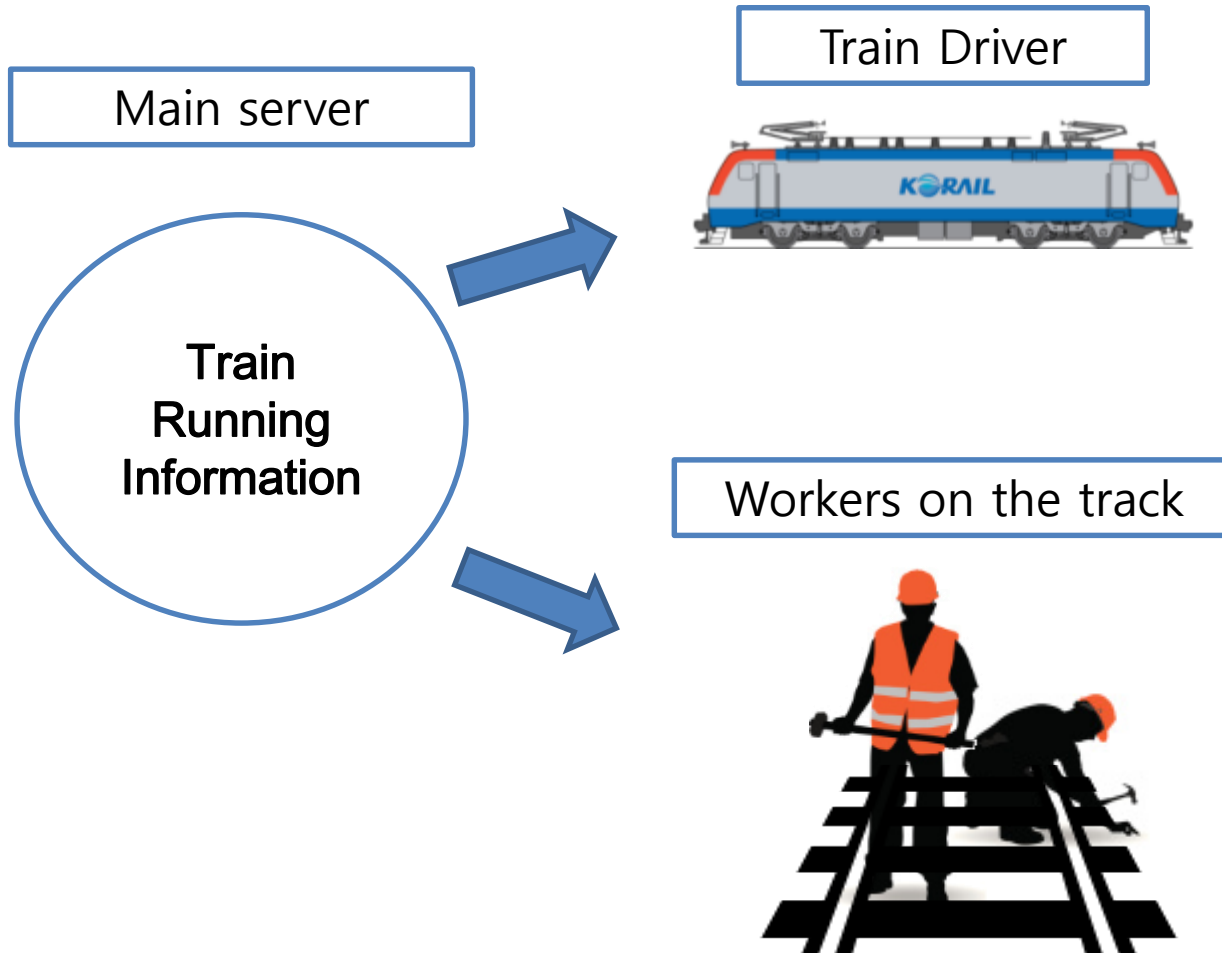
UIC(KORAIL)
JEON YongJoo



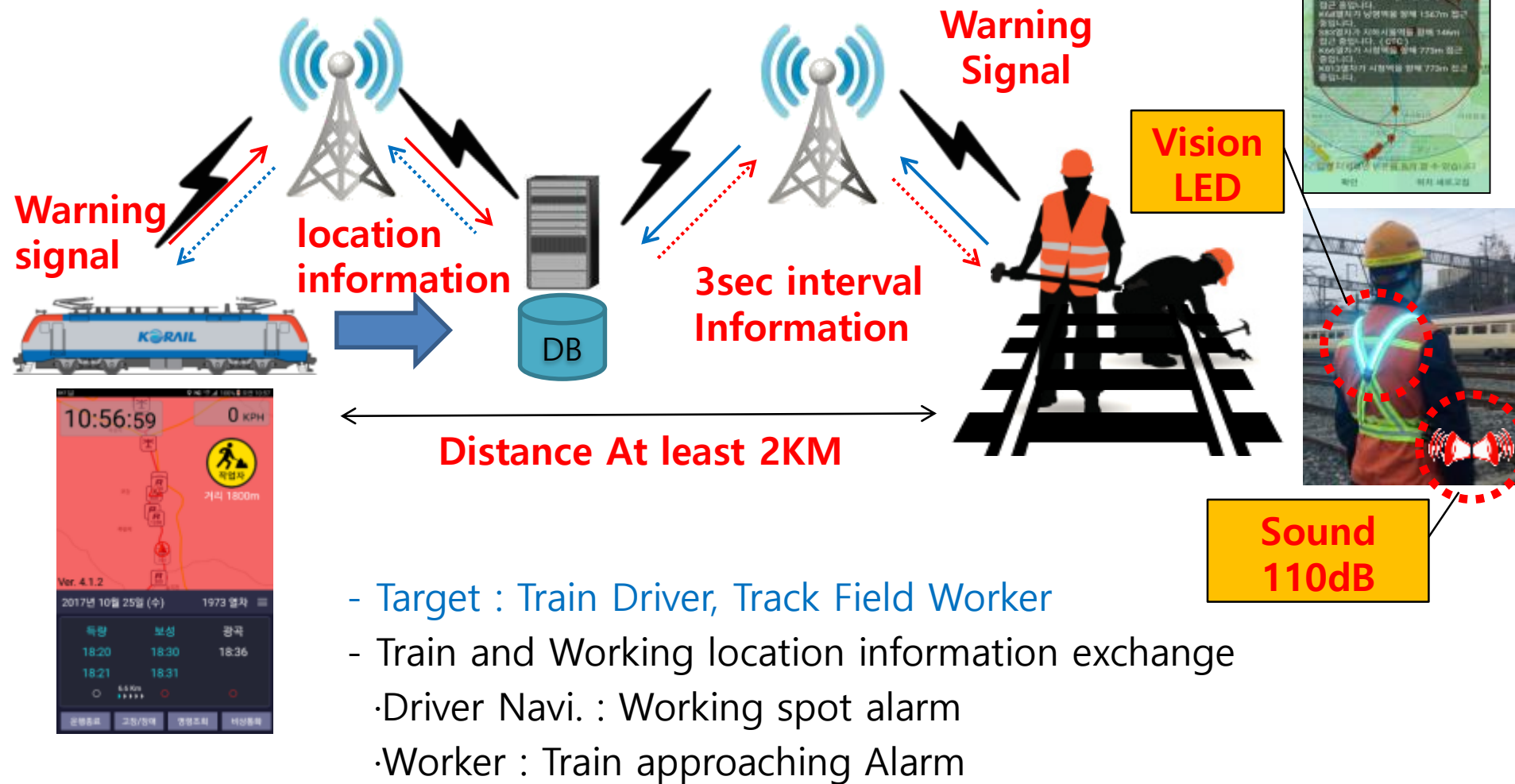
1. Train Safe Driving System

Basic concept

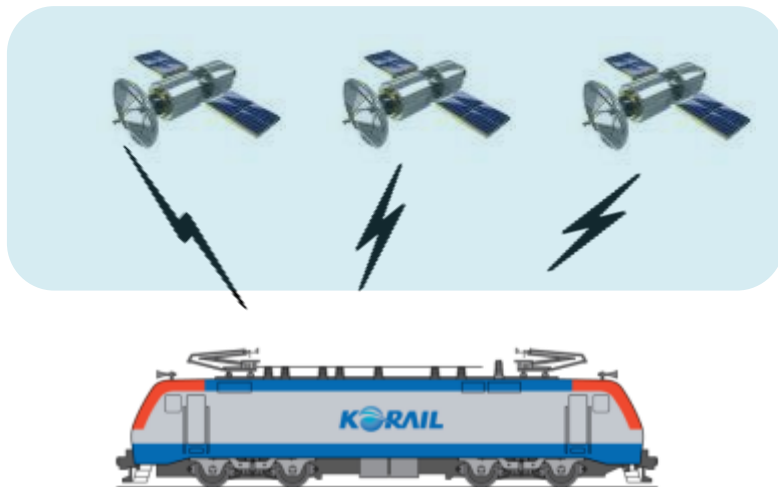
To enhance safety for the railway worker



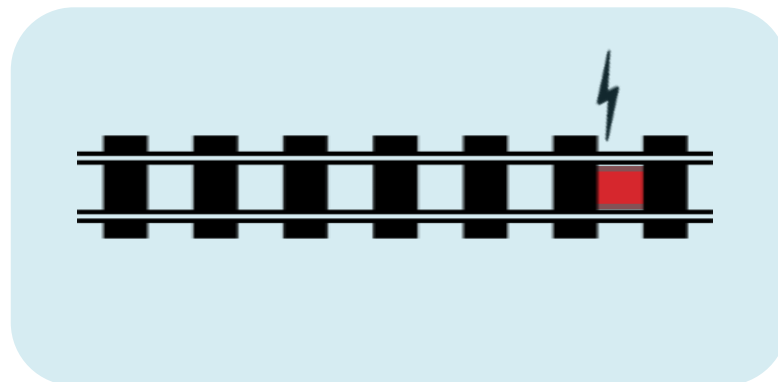
System operation concept



Train location detection Algorithm



GPS + CTC Track circuit)

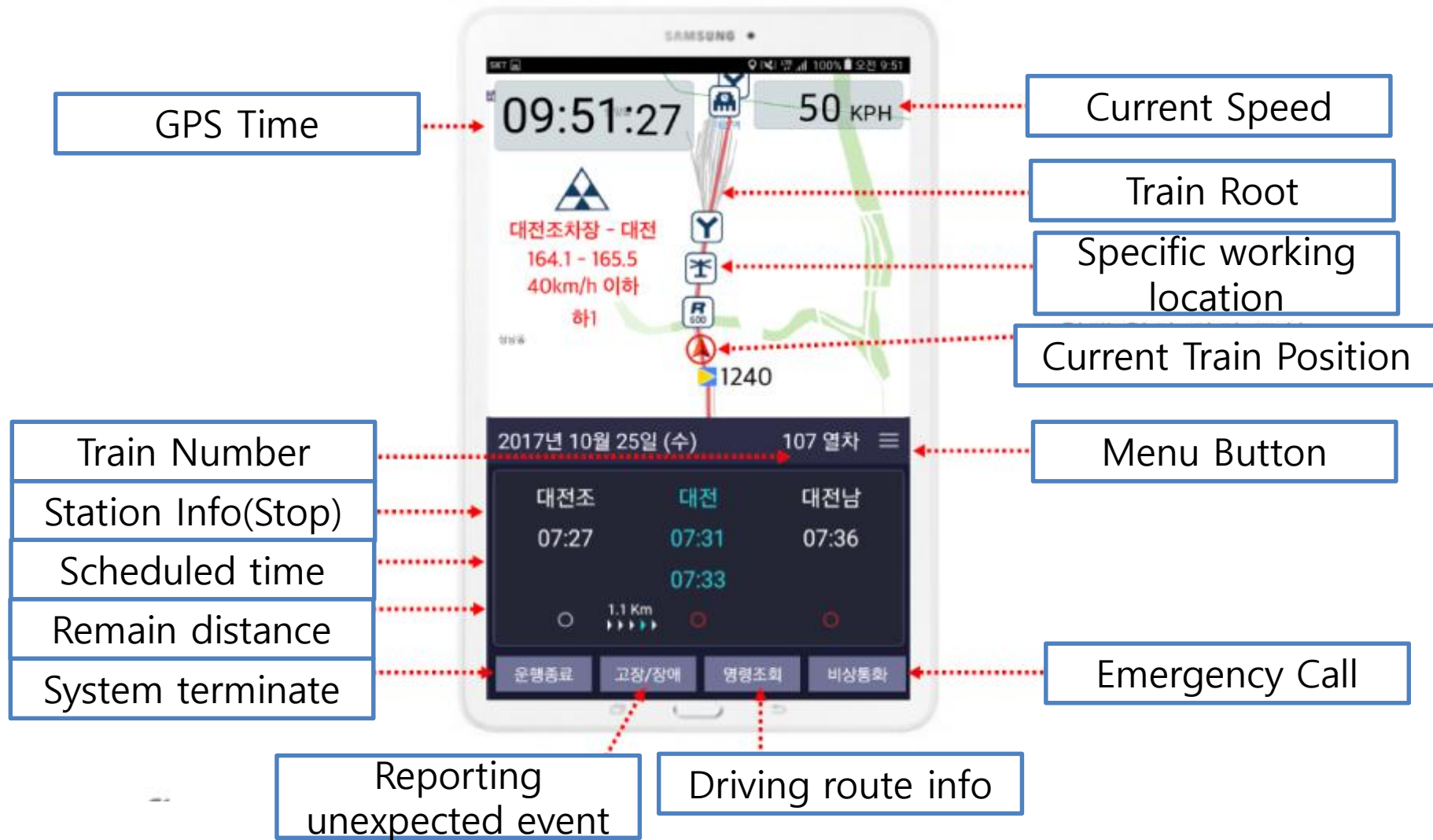


<Train location information >

Classify	contents
Normal	Train location Trough GPS info (Train location with high Accuracy)
GPS Shade	CTC Track circuit (1.5km boundary train location)



Driver Navigation System

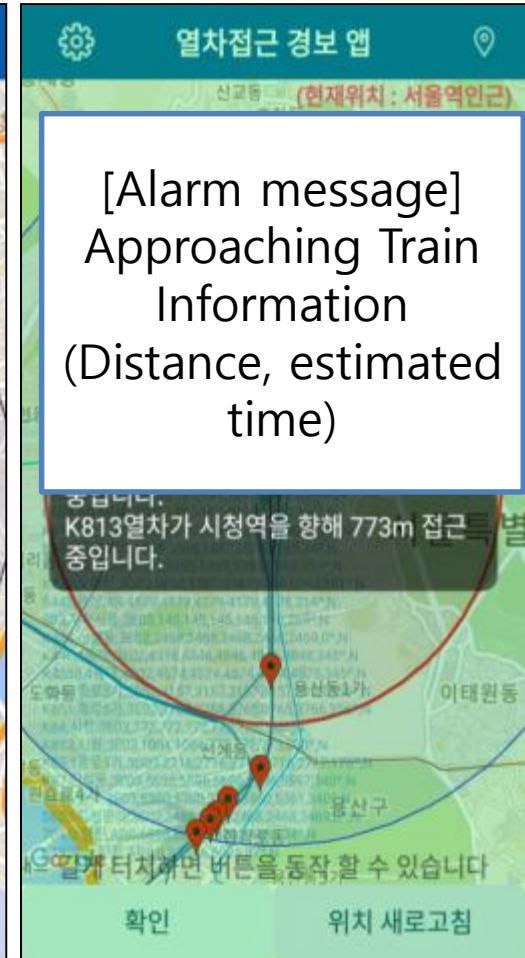
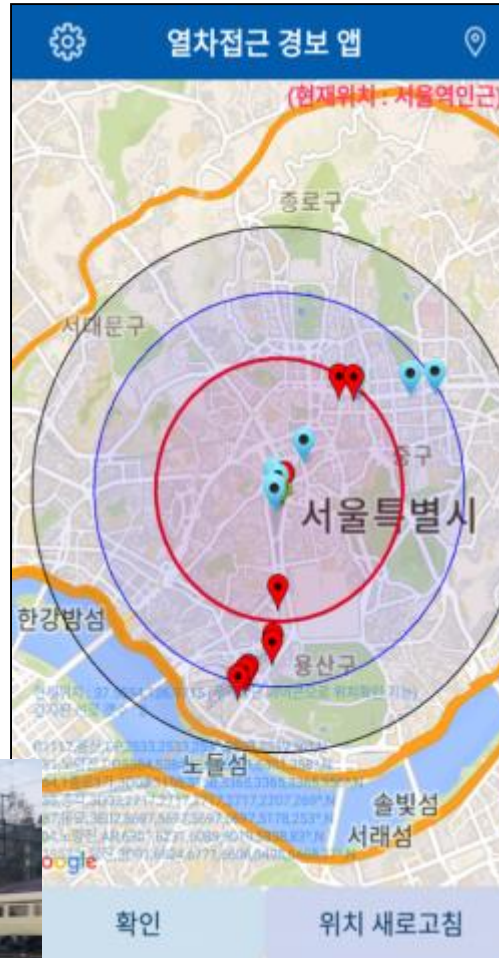


Track worker Information

Configuration

Operating distance

View through map



설정하기





2. Management Information System

| System Overview

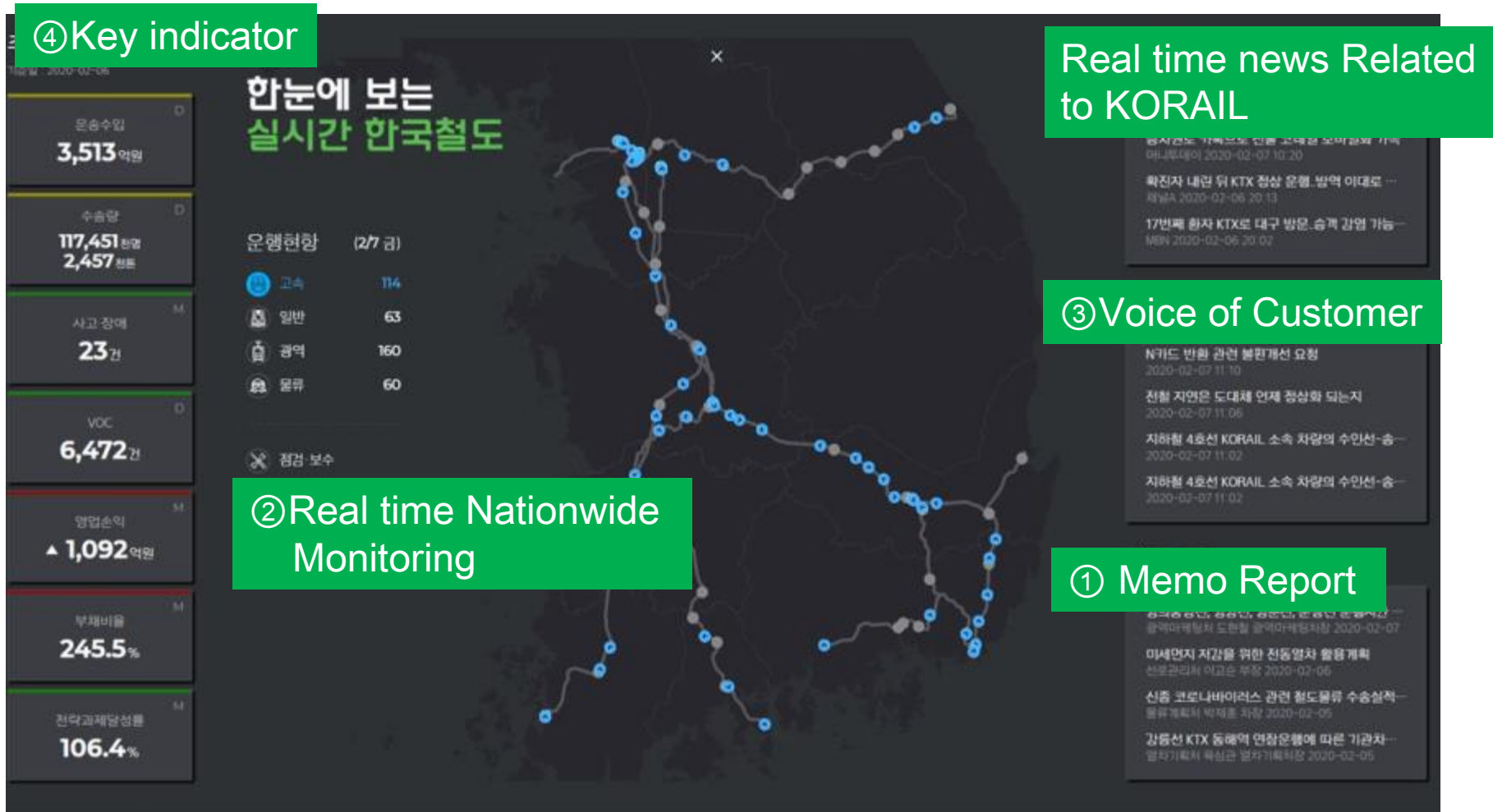
▸ Main Purpose

“Untact” innovation to reduce paper documents and face-to-face reporting and increase work efficiency

▸ Main Function

- ① “Memo Report ” Minimizes unnecessary document creation, shortens approval time, and optimizes administrative processing time.
- ② “Real-time nationwide monitoring” Shows train operation information and maintenance work sites across the country.
Rapid response to train delays or railroad accidents and obstacles to enhance safety/customer satisfaction.
 - In the form of a map, the status of train operation based on GPS is updated in real time. By clicking on each route, you can also check the status of facility maintenance work such as track and electricity.
- ③ “Voice of Customer” monitoring
- ④ Provide “key indicators” to support executive decision-making

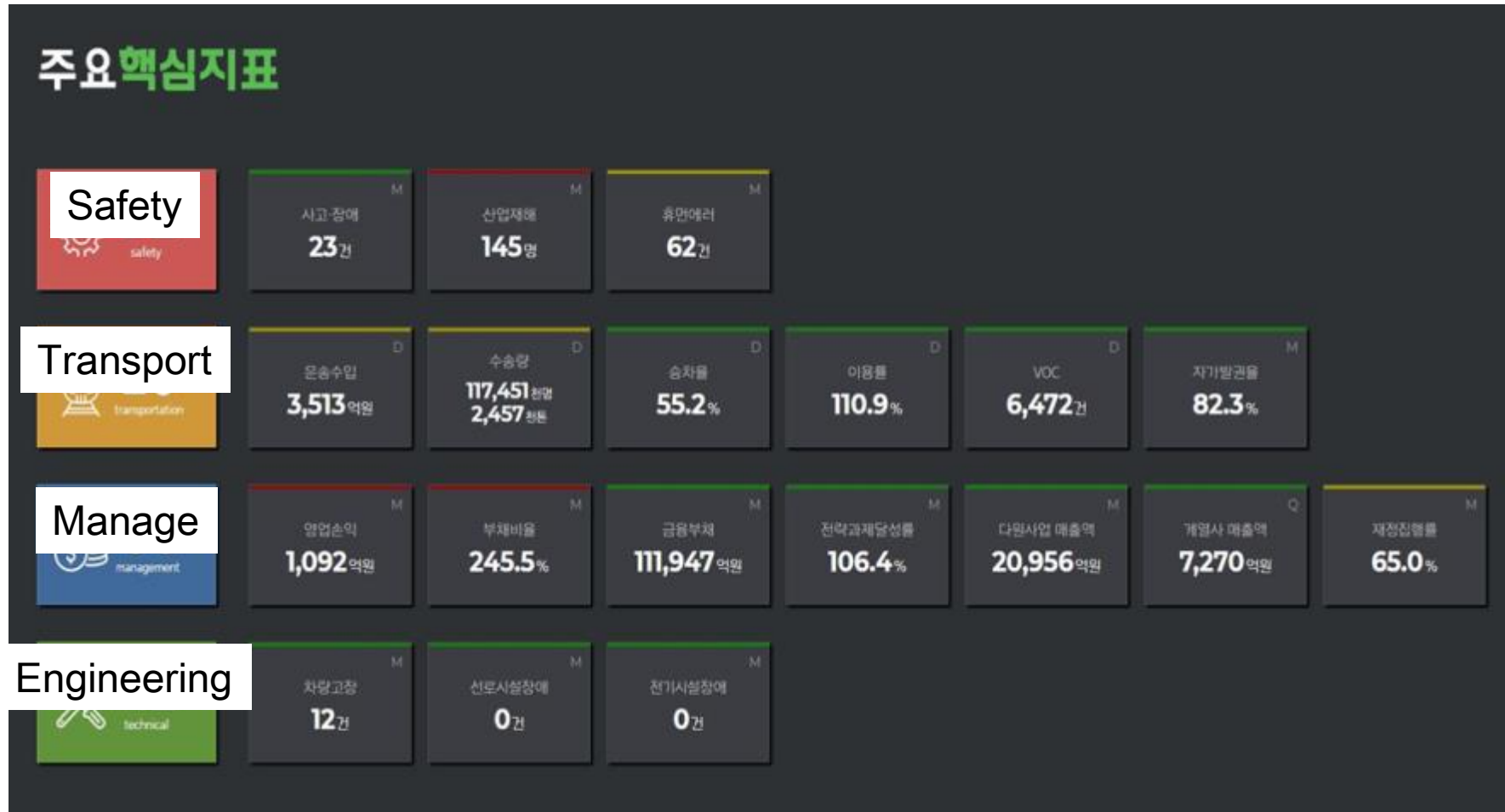
Configuration for Main screen



Main Function Introduction(Voice of Customer)



Main Function Introduction(Key Indicator)



Key indicator(Safety)



- ▶ Accident and disturbance
Number of case and the trend

Human Error



Industrial Accident

Number of case and trend, Categorize



Key indicator(Transport)

- ▶ Transportation Income
Categorize by train and branch office



- ▶ Traffic Volume



- ▶ Loading rate
Categorize by train and branch office



Key indicator(Manage)



▶ Operating profit and loss



▶ Financial Liability

Key indicator(Accident and disturbance)



▶ Train accident



▶ Infrastructure disturbance



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Thank you